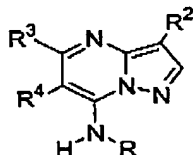


Amendments to the Claims

The listing of claims will replace all prior versions and listing of claims in the application:

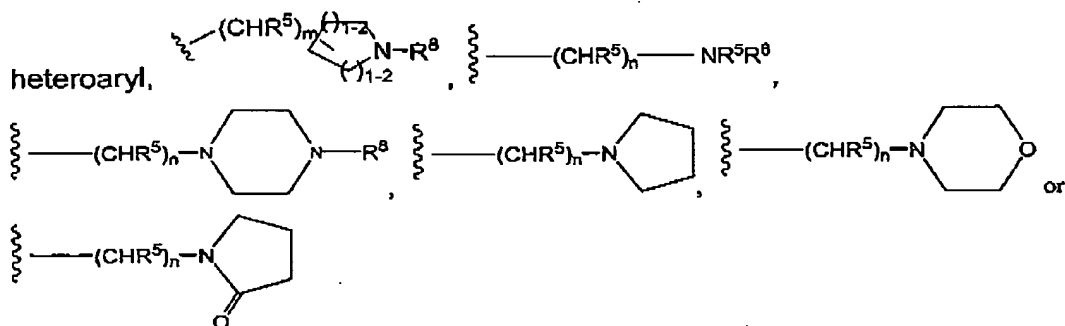
Listing of Claims:

- 5 Claim 1 (currently amended): A compound represented by the structural formula:



or a pharmaceutically acceptable salt of said compound,
wherein:

- 10 R is H, alkyl, alkenyl, alkynyl, arylalkyl, arylalkenyl, cycloalkyl, cycloalkylalkyl, alkenylalkyl, alkynylalkyl, heterocyclyl, heterocyclalkyl, heteroarylalkyl (including N-oxide of said heteroaryl), $-(CHR^5)_n$ -aryl, $-(CHR^5)_n$ -



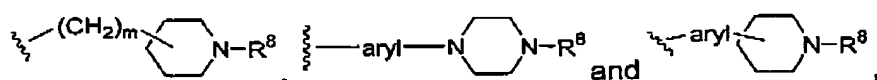
- 15 wherein each of said alkyl, alkenyl, alkynyl, aryl, cycloalkyl, heterocyclyl, and heteroaryl can be unsubstituted or optionally substituted with one or more moieties which can be the same or different, each moiety being independently selected from the group consisting of halogen, alkyl, cycloalkyl, heterocyclalkyl, CF_3 , OCF_3 , CN, $-OR^5$, $-NR^5R^{10}$, $-C(R^4R^5)_p-R^9$, $-N(R^5)Boc$, $-(CR^4R^5)_pOR^5$, $-C(O_2)R^5$, $-C(O)R^5$, $-C(O)NR^5R^{10}$, $-SO_3H$, $-SR^{10}$, $-S(O_2)R^7$, $-S(O_2)NR^5R^{10}$, $-N(R^5)S(O_2)R^7$, $-N(R^5)C(O)R^7$ and $-N(R^5)C(O)NR^5R^{10}$;

- 20 R^2 is selected from the group consisting of R^9 , alkyl, alkenyl, alkynyl, CF_3 , heterocyclyl, heterocyclalkyl, halogen, haloalkyl, aryl, arylalkyl, heteroarylalkyl, alkynylalkyl, cycloalkyl, heteroaryl, alkyl substituted with 1-6 R^9 groups which can be the same or different and are independently selected

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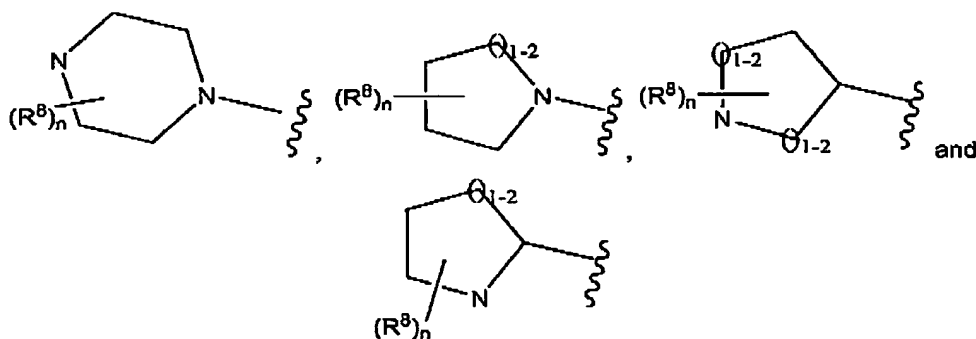
from the list of R^9 shown below, aryl substituted with 1-3 aryl or heteroaryl groups which can be the same or different and are independently selected from phenyl, pyridyl, thiophenyl, furanyl and thiazolo groups, aryl fused with an aryl or heteroaryl group, heteroaryl substituted with 1-3 aryl or heteroaryl groups which can be the same or different and are independently selected from phenyl, pyridyl, thiophenyl, furanyl and thiazolo groups, heteroaryl fused

with an aryl or heteroaryl group, $\text{---}(\text{CH}_2)_m\text{---N---R}^8$,



- wherein one or more of the aryl and/or one or more of the heteroaryl in the above-noted definitions for R^2 can be unsubstituted or optionally substituted with one or more moieties which can be the same or different, each moiety being independently selected from the group consisting of halogen, -CN, -OR⁵, -SR⁵, -S(O₂)R⁶, -S(O₂)NR⁵R⁶, -NR⁵R⁶, -C(O)NR⁵R⁶, CF₃, alkyl, aryl and OCF₃;

R^3 is selected from the group consisting of H, halogen, -NR⁵R⁶, -OR⁶, -SR⁶, -C(O)N(R⁵R⁶), alkyl, alkynyl, cycloalkyl, aryl, arylalkyl, heterocyclyl, heterocyclylalkyl, heteroaryl and heteroarylalkyl,



- wherein each of said alkyl, cycloalkyl, aryl, arylalkyl, heterocyclyl, heterocyclylalkyl, heteroaryl and heteroarylalkyl for R^3 and the heterocyclyl moieties whose structures are shown immediately above for R^3 can be unsubstituted or optionally independently substituted with one or more moieties which can be the same or different, each moiety being independently

selected from the group consisting of halogen, alkyl, aryl, cycloalkyl, CF₃, CN, -OCF₃, -(CR⁴R⁵)_pOR⁵, -OR⁵, -NR⁵R⁶, -(CR⁴R⁵)_pNR⁵R⁶, -C(O₂)R⁵, -C(O)R⁵, -C(O)NR⁵R⁶, -SR⁶, -S(O₂)R⁶, -S(O₂)NR⁵R⁶, -N(R⁵)S(O₂)R⁷, -N(R⁵)C(O)R⁷ and -N(R⁵)C(O)NR⁵R⁶, with the proviso that no carbon adjacent to a nitrogen atom
5 on a heterocyclyl ring carries a -OR⁵ moiety;

R⁴ is H, halo or alkyl;

R⁵ is H, alkyl, aryl or cycloalkyl;

R⁶ is selected from the group consisting of H, alkyl, alkenyl, aryl, arylalkyl, arylalkenyl, cycloalkyl, heterocyclyl, heterocyclylalkyl, heteroaryl,
10 and heteroarylalkyl, wherein each of said alkyl, aryl, arylalkyl, cycloalkyl, heterocyclyl, heterocyclylalkyl, heteroaryl, and heteroarylalkyl can be unsubstituted or optionally substituted with one or more moieties which can be the same or different, each moiety being independently selected from the group consisting of halogen, alkyl, aryl, cycloalkyl, heterocyclylalkyl, CF₃,
15 OCF₃, CN, -OR⁵, -NR⁵R¹⁰, -C(R⁴R⁵)_p-R⁹, -N(R⁵)Boc, -(CR⁴R⁵)_pOR⁵, -C(O₂)R⁵, -C(O)R⁵, -C(O)NR⁵R¹⁰, -SO₃H, -SR¹⁰, -S(O₂)R⁷, -S(O₂)NR⁵R¹⁰, -N(R⁵)S(O₂)R⁷, -N(R⁵)C(O)R⁷ and -N(R⁵)C(O)NR⁵R¹⁰;

R¹⁰ is selected from the group consisting of H, alkyl, aryl, arylalkyl, cycloalkyl, heterocyclyl, heterocyclylalkyl, heteroaryl, and heteroarylalkyl,
20 wherein each of said alkyl, aryl, arylalkyl, cycloalkyl, heterocyclyl, heterocyclylalkyl, heteroaryl, and heteroarylalkyl can be unsubstituted or optionally substituted with one or more moieties which can be the same or different, each moiety being independently selected from the group consisting of halogen, alkyl, aryl, cycloalkyl, heterocyclylalkyl, CF₃, OCF₃, CN, -OR⁵,
25 -NR⁴R⁵, -C(R⁴R⁵)_p-R⁹, -N(R⁵)Boc, -(CR⁴R⁵)_pOR⁵, -C(O₂)R⁵, -C(O)NR⁴R⁵, -C(O)R⁵, -SO₃H, -SR⁵, -S(O₂)R⁷, -S(O₂)NR⁴R⁵, -N(R⁵)S(O₂)R⁷, -N(R⁵)C(O)R⁷ and -N(R⁵)C(O)NR⁴R⁵;

or optionally (i) R⁵ and R¹⁰ in the moiety -NR⁵R¹⁰, or (ii) R⁵ and R⁶ in the moiety -NR⁵R⁶, may be joined together to form a cycloalkyl or
30 heterocyclyl moiety, with each of said cycloalkyl or heterocyclyl moiety being unsubstituted or optionally independently being substituted with one or more R⁹ groups;

R⁷ is selected from the group consisting of alkyl, cycloalkyl, aryl, arylalkenyl, heteroaryl, arylalkyl, heteroarylalkyl, heteroarylalkenyl, and

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heterocyclyl, wherein each of said alkyl, cycloalkyl, heteroarylalkyl, aryl, heteroaryl and arylalkyl can be unsubstituted or optionally independently substituted with one or more moieties which can be the same or different, each moiety being independently selected from the group consisting of

5 halogen, alkyl, aryl, cycloalkyl, CF_3 , OCF_3 , CN , $-\text{OR}^5$, $-\text{NR}^5\text{R}^{10}$, $-\text{CH}_2\text{OR}^5$, $-\text{C}(\text{O}_2)\text{R}^5$, $-\text{C}(\text{O})\text{NR}^5\text{R}^{10}$, $-\text{C}(\text{O})\text{R}^5$, $-\text{SR}^{10}$, $-\text{S}(\text{O}_2)\text{R}^{10}$, $-\text{S}(\text{O}_2)\text{NR}^5\text{R}^{10}$, $-\text{N}(\text{R}^5)\text{S}(\text{O}_2)\text{R}^{10}$, $-\text{N}(\text{R}^5)\text{C}(\text{O})\text{R}^{10}$ and $-\text{N}(\text{R}^5)\text{C}(\text{O})\text{NR}^5\text{R}^{10}$;

R^8 is selected from the group consisting of R^6 , $-\text{OR}^6$, $-\text{C}(\text{O})\text{NR}^5\text{R}^{10}$, $-\text{S}(\text{O}_2)\text{NR}^5\text{R}^{10}$, $-\text{C}(\text{O})\text{R}^7$, $-\text{C}(=\text{N}-\text{CN})-\text{NH}_2$, $-\text{C}(=\text{NH})-\text{NHR}^5$, heterocyclyl, and

10 $-\text{S}(\text{O}_2)\text{R}^7$;

R^9 is selected from the group consisting of halogen, $-\text{CN}$, $-\text{NR}^5\text{R}^{10}$, $-\text{C}(\text{O}_2)\text{R}^6$, $-\text{C}(\text{O})\text{NR}^5\text{R}^{10}$, $-\text{OR}^6$, $-\text{SR}^6$, $-\text{S}(\text{O}_2)\text{R}^7$, $-\text{S}(\text{O}_2)\text{NR}^5\text{R}^{10}$, $-\text{N}(\text{R}^5)\text{S}(\text{O}_2)\text{R}^7$, $-\text{N}(\text{R}^5)\text{C}(\text{O})\text{R}^7$ and $-\text{N}(\text{R}^5)\text{C}(\text{O})\text{NR}^5\text{R}^{10}$;

m is 0 to 4;

15 n is 1 to 4; and

p is 1 to 4,

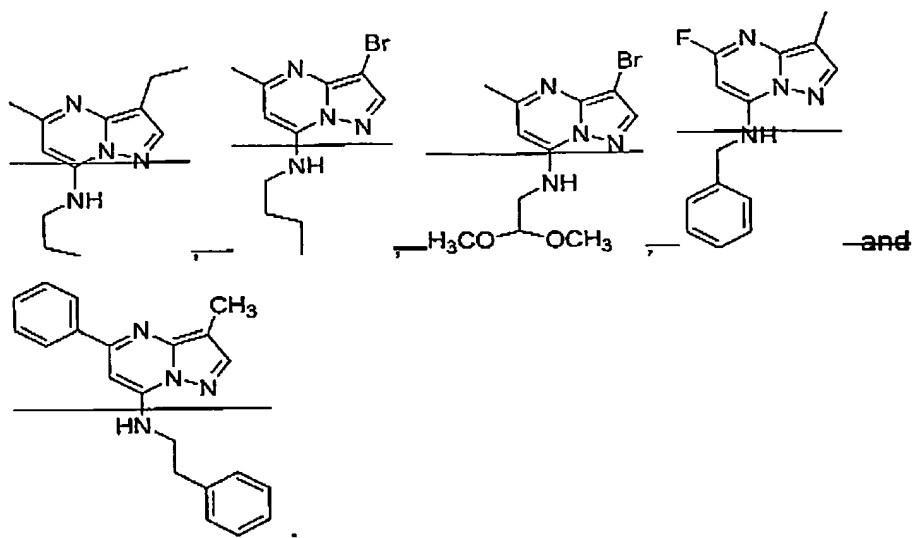
with the proviso that when R^2 is phenyl, R^3 is not alkyl, alkynyl or halogen, and

that when R^2 is aryl, R is not $\begin{array}{c} \text{S} \\ | \\ \text{---}(\text{CHR}^5)_n\text{---} \end{array} \text{NR}^5\text{R}^8$, and with the further

proviso that when R is arylalkyl, then any heteroaryl substituent on the aryl of

20 said arylalkyl contains at least three heteroatoms, and with the additional proviso that the compound of the structural formula above excludes the following compounds:

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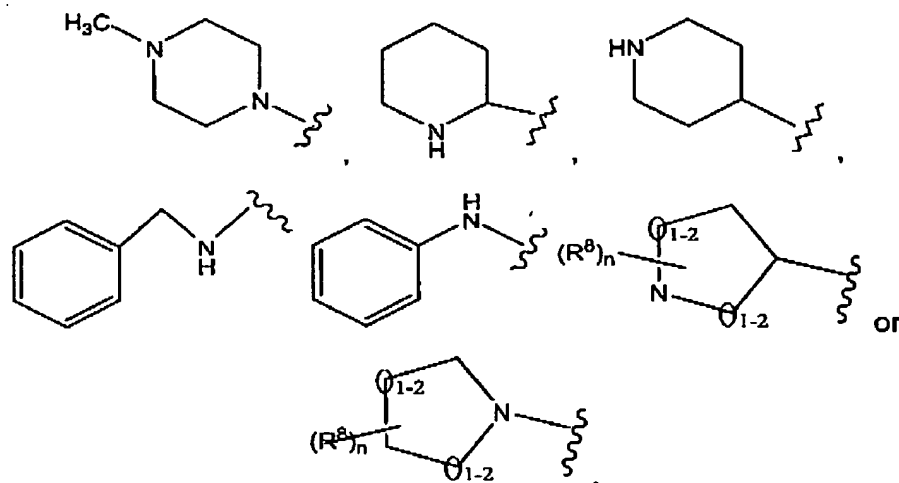


Claim 2 (currently amended): The compound of claim 1, wherein R is -

5 $(\text{CHR}^5)_n$ -aryl, $(\text{CHR}^5)_n$ -heteroaryl, alkyl, cycloalkyl, heterocyclyl, or heteroarylalkyl (including N-oxide of said heteroaryl), wherein each of said alkyl, aryl, cycloalkyl, heterocyclyl and heteroaryl can be unsubstituted or optionally substituted with one or more moieties as stated in claim 1;

R^2 is halogen, alkyl, haloalkyl, CN, cycloalkyl, heterocyclyl or alkynyl;

10 R^3 is H, lower-alkyl, aryl, heteroaryl, cycloalkyl, $-\text{NR}^5\text{R}^6$,



wherein said alkyl, aryl, heteroaryl, cycloalkyl and the heterocyclyl structures
15 shown immediately above for R^3 are optionally substituted with one or more

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moieties which can be the same or different, each moiety being independently selected from the group consisting of halogen, CF_3 , OCF_3 , lower alkyl, CN, $-\text{C}(\text{O})\text{R}^5$, $-\text{S}(\text{O}_2)\text{R}^5$, $-\text{C}(=\text{NH})\text{-NH}_2$, $-\text{C}(=\text{CN})\text{-NH}_2$, hydroxyalkyl, alkoxy carbonyl, $-\text{SR}^5$, and OR^5 , with the proviso that no carbon adjacent to a nitrogen atom on a heterocyclyl ring carries a $-\text{OR}^5$ moiety;

5 a heterocyclyl ring carries a $-\text{OR}^5$ moiety;

R^4 is H or lower alkyl;

R^5 is H, lower alkyl or cycloalkyl;

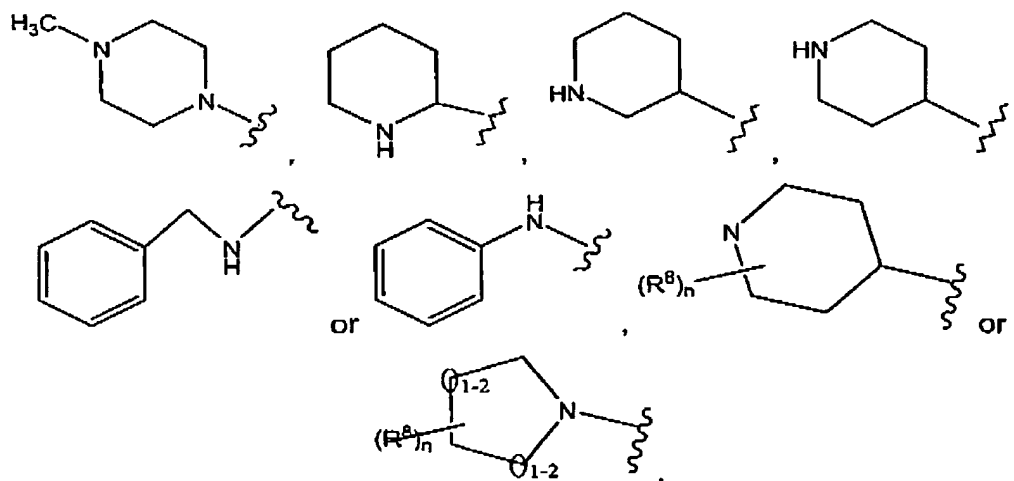
n is 1 to 2; and

p is 1 or 2.

10 Claim 3 (currently amended): The compound of claim 2, wherein R is hydroxyalkyl, $-(\text{CHR}^5)_n\text{-aryl}$, or $-(\text{CHR}^5)_n\text{-heteroaryl}$, wherein each of said aryl and heteroaryl is unsubstituted or substituted with one or more groups which can be the same or different, each group being independently selected from the group consisting of heteroaryl, amine, heterocyclyl, $-\text{C}(\text{O})\text{N}(\text{R}^5\text{R}^6)$,
15 $-\text{S}(\text{O}_2)\text{R}^5$, $-\text{S}(\text{O}_2)\text{N}(\text{R}^5\text{R}^6)$, alkoxy and halo.

Claim 4 (original): The compound of claim 2, wherein R^2 is Br, Cl, CF_3 , CN, lower alkyl, cyclopropyl, alkynyl, alkyl substituted with $-\text{OR}^6$ or tetrahydrofuranyl.

20 Claim 5 (currently amended): The compound of claim 2, wherein R^3 is H, lower alkyl, aryl, heteroaryl, cycloalkyl,



25 wherein each of said alkyl, aryl, heteroaryl, cycloalkyl and the heterocyclyl structures shown immediately above for R^3 are optionally substituted with one or more moieties which moieties can be the same or different, each moiety

being independently selected from the group consisting of halogen, CF₃, OCF₃, lower alkyl, CN and OR⁵, with the proviso that no carbon adjacent to a nitrogen atom on a heterocyclyl ring carries a – OR⁵ moiety.

Claim 6 (original): The compound of claim 2, wherein R⁴ is H or lower alkyl.

5 Claim 7 (original): The compound of claim 2, wherein R⁵ is H.

Claim 8 (original): The compound of claim 2, wherein n is 1.

Claim 9 (original): The compound of claim 1, wherein p is 1.

Claim 10 (currently amended): The compound of claim 2, wherein R is ~~benzyl or~~ hydroxyalkyl.

10 Claim 11 (original): The compound of claim 2, wherein R is pyrid-3-ylmethyl, wherein said pyridyl may be unsubstituted or optionally independently substituted with one or more moieties as stated in claim 1.

Claim 12 (original): The compound of claim 2, wherein R is pyrid-4-ylmethyl, wherein said pyridyl may be unsubstituted or optionally independently

15 substituted with one or more moieties as stated in claim 1.

Claim 13 (original): The compound 2, wherein R is the N-oxide of pyrid-2-ylmethyl, pyrid-3-ylmethyl, or pyrid-4-ylmethyl, wherein each of said pyridyl may be unsubstituted or optionally independently substituted with one or more moieties as stated in claim 1.

20 Claim 14 (original): The compound of claim 4, wherein said R² is Br.

Claim 15 (original): The compound of claim 4, wherein said R² is Cl.

Claim 16 (original): The compound of claim 4, wherein R² is ethyl.

Claim 17 (original): The compound of claim 4, wherein R² is cyclopropyl.

Claim 18 (original): The compound of claim 4, wherein R² is ethynyl.

25 Claim 19 (currently amended): The compound of claim 2, wherein R³ is ~~lower alkyl,~~ cycloalkyl, heterocyclyl, aryl or –N(R⁵R⁶).

Claim 20 (currently amended): The compound of claim 19, wherein R³ is ~~isopropyl~~ heterocyclyl.

30 Claim 21 (original): The compound of claim 19, wherein R³ is cyclohexyl or norbornyl wherein each of said cyclohexyl or norbornyl can be unsubstituted or substituted with one or more moieties which can be the same or different, each moiety being independently selected from the group consisting of alkyl and hydroxyalkyl.

Claim 22 (original): The compound of claim 19, wherein R^3 is unsubstituted phenyl.

Claim 23 (original): The compound of claim 19, wherein R^3 is a phenyl substituted with one or moieties which can be the same or different, each
5 moiety being independently selected from the group consisting of F, Br, Cl and CF_3 .

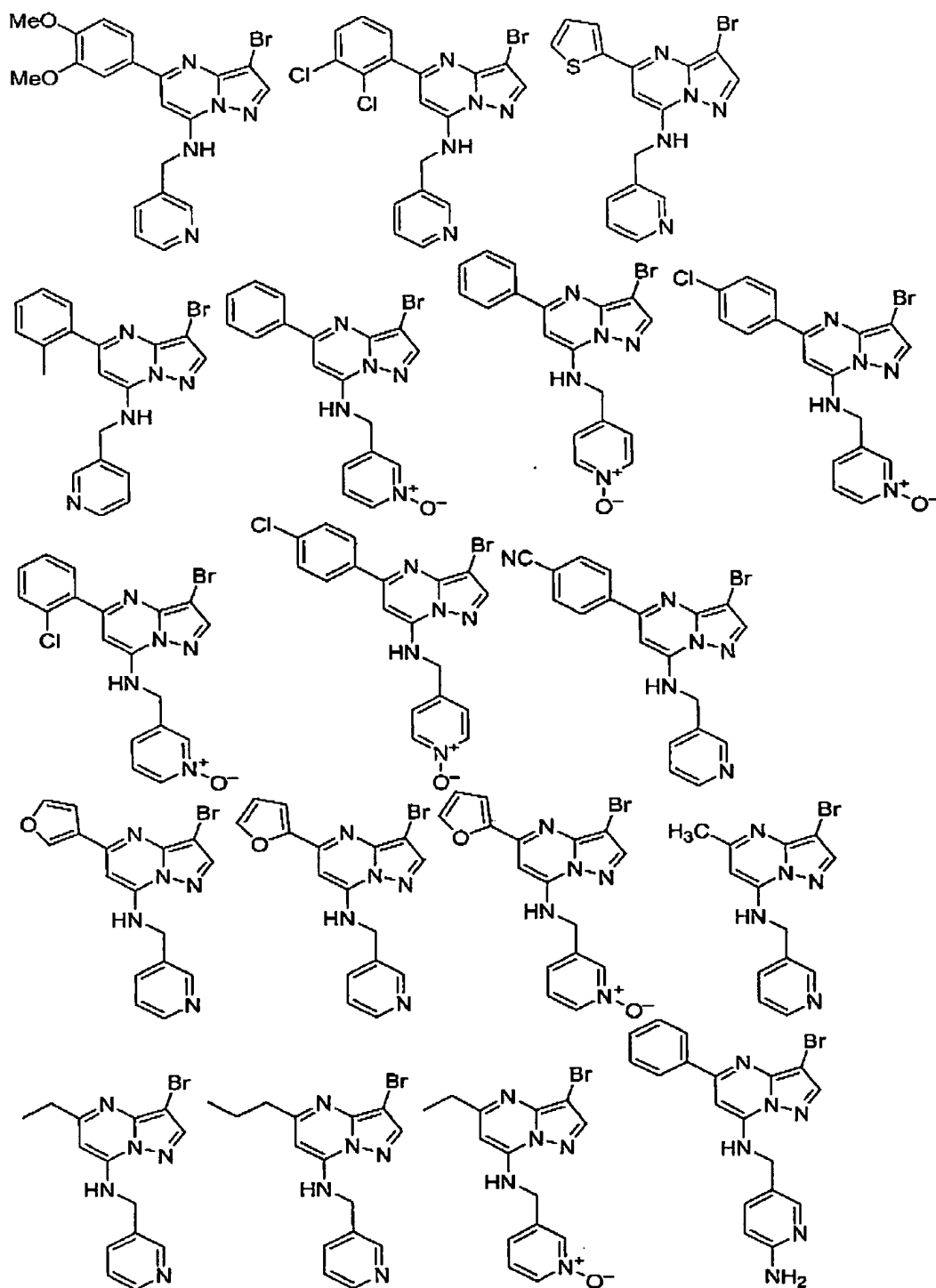
Claim 24 (original): The compound of claim 19, wherein R^5 of said $-N(R^5R^6)$ is H or hydroxyalkyl, and R^6 of said $-N(R^5R^6)$ is selected from the group consisting of alkyl, hydroxyalkyl, cycloalkyl and methylenedioxy, wherein each
10 of said alkyl and cycloalkyl can be unsubstituted or substituted with one or more moieties which can be the same or different, each moiety being independently selected from the group consisting of amine, ethoxycarbonyl, amide, hydroxyalkyl, hydroxy,

Claim 25 (original): The compound of claim 19, wherein R^5 and R^6 of said
15 $-N(R^5R^6)$ are joined together to form a heterocyclyl moiety, wherein said heterocyclyl moiety can be unsubstituted or optionally independently substituted with one or more groups which can be the same or different, each group being selected from the group consisting of hydroxyalkyl, amide, $-C(O)R^5$, $>C(CH_3)_2$, $-S(O_2)R^5$, $-S(O_2)N(R^5R^6)$, $-C(=NH)N(R^5R^6)$ and
20 $-C(=N-CN)N(R^5R^6)$.

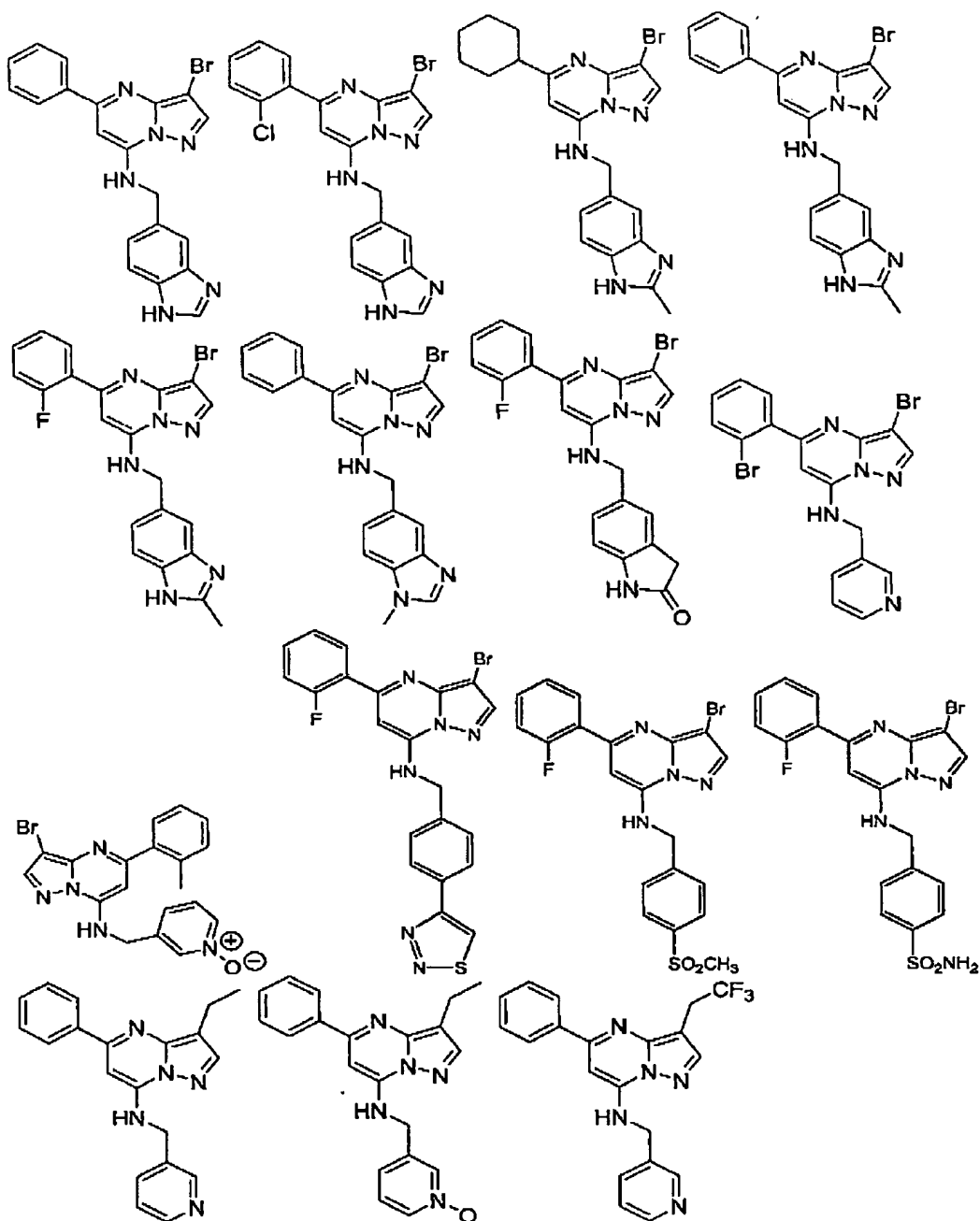
Claim 26 (original): The compound of claim 25, wherein said heterocyclyl moiety formed by R^5 and R^6 is a pyrrolidine or piperidine ring.

Claim 27 (currently amended): A compound of the formula:

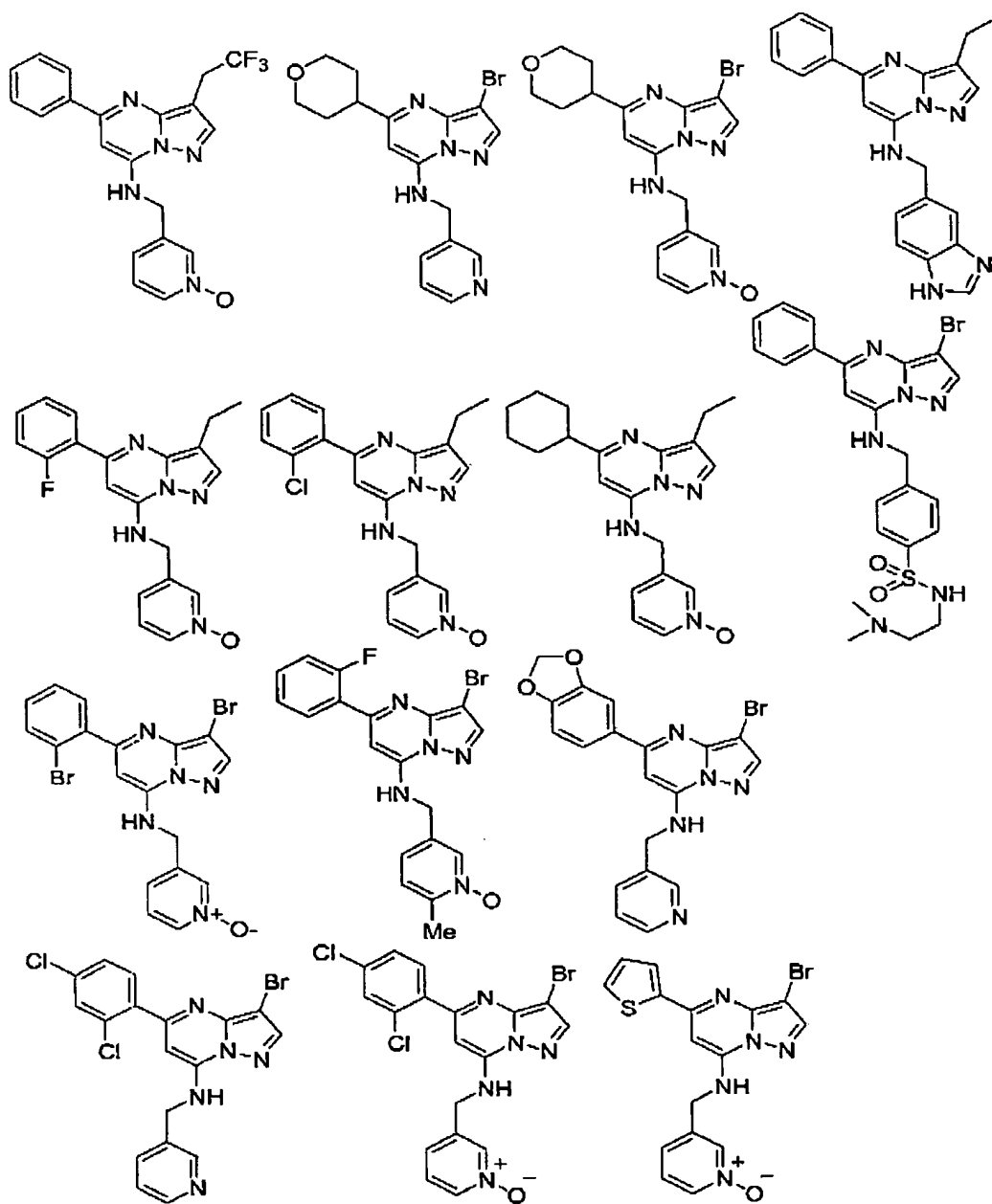
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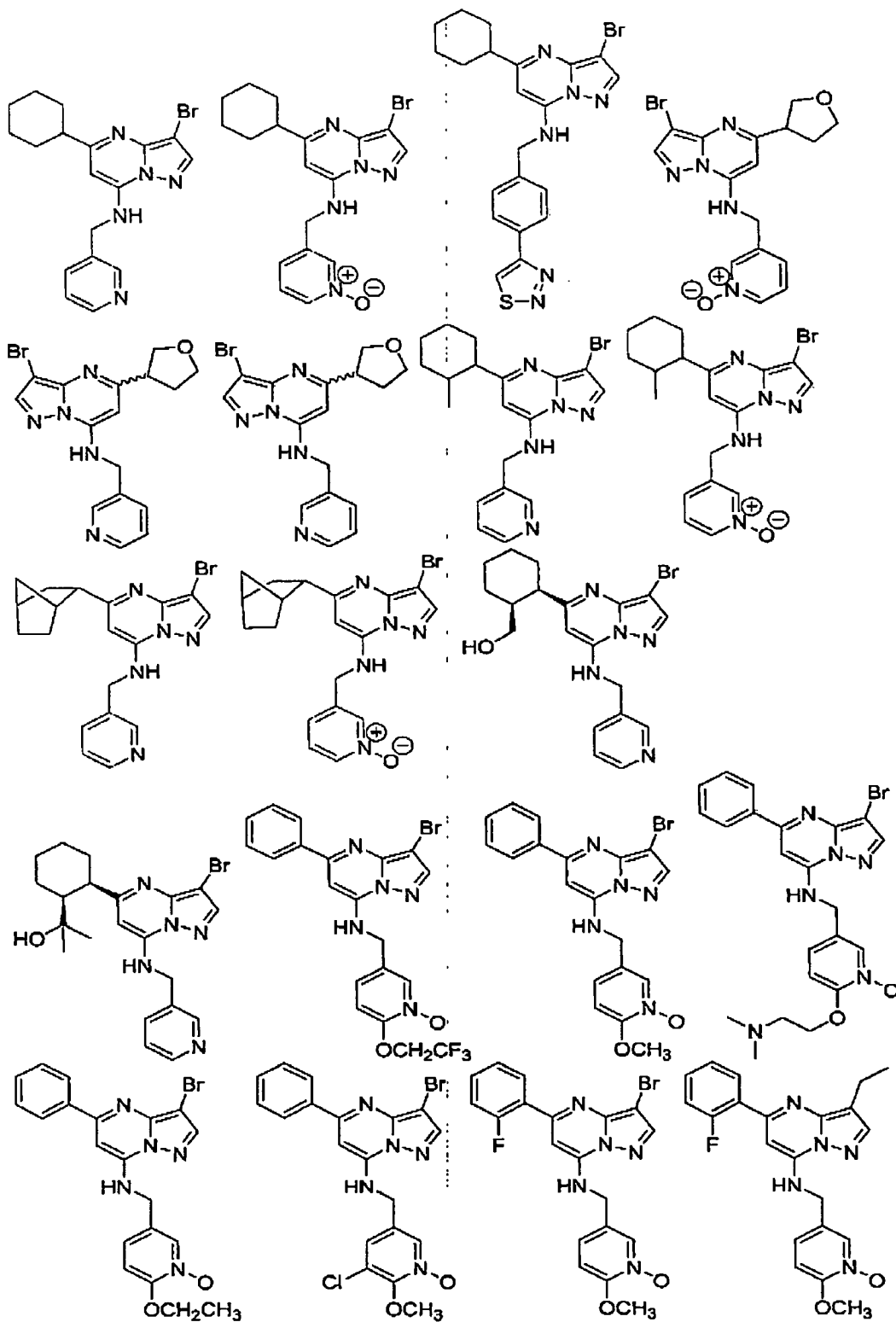
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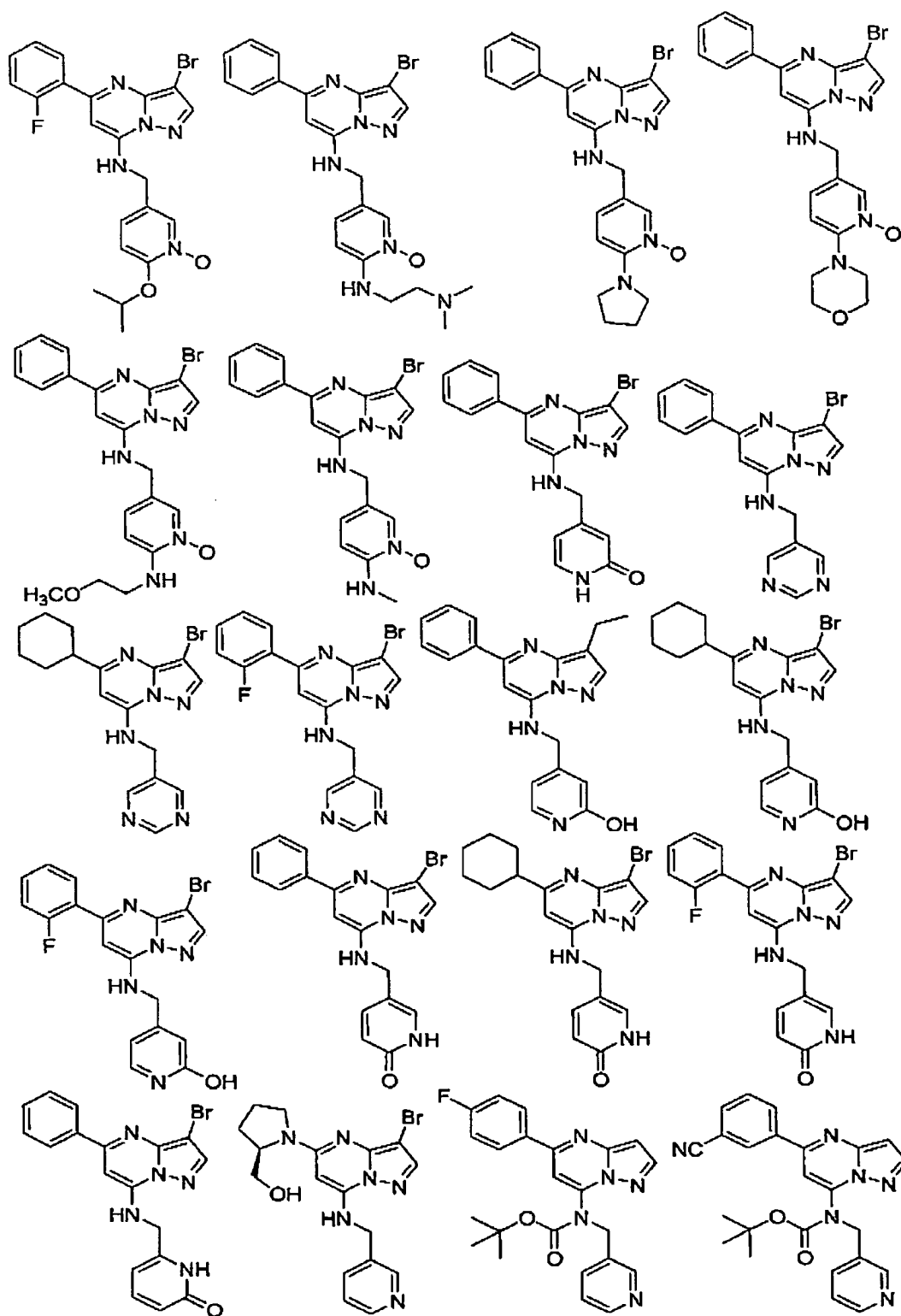
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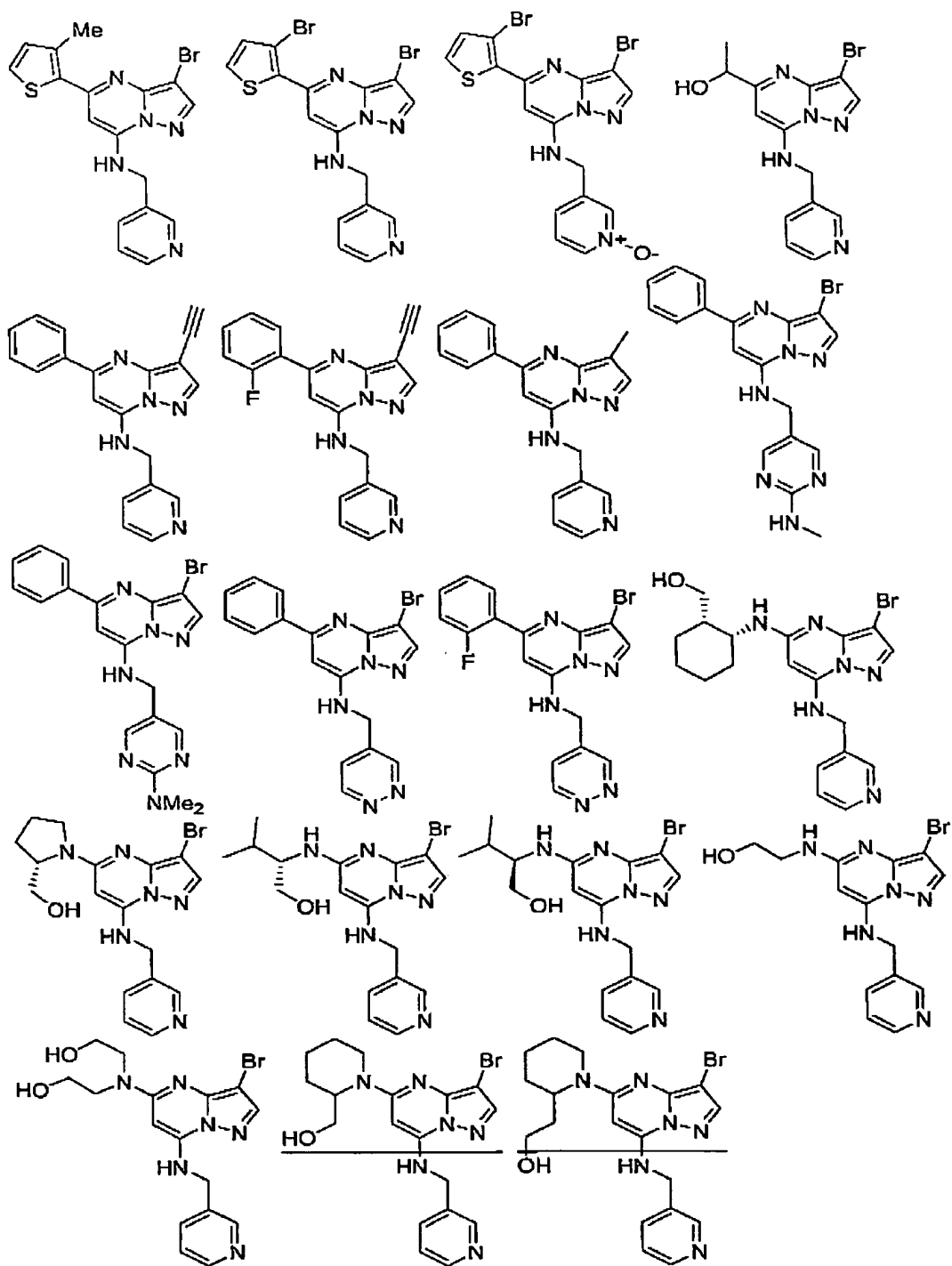
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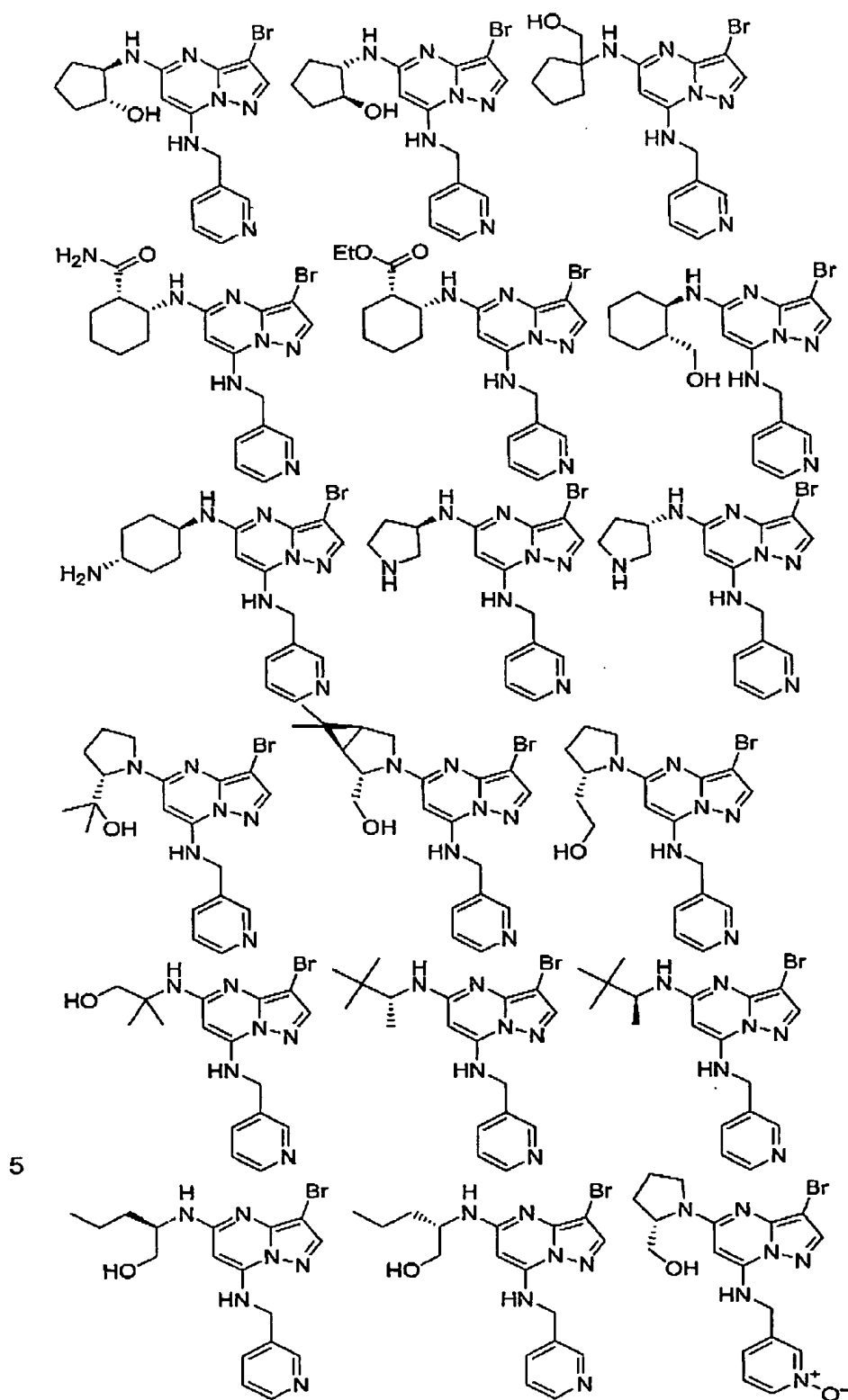
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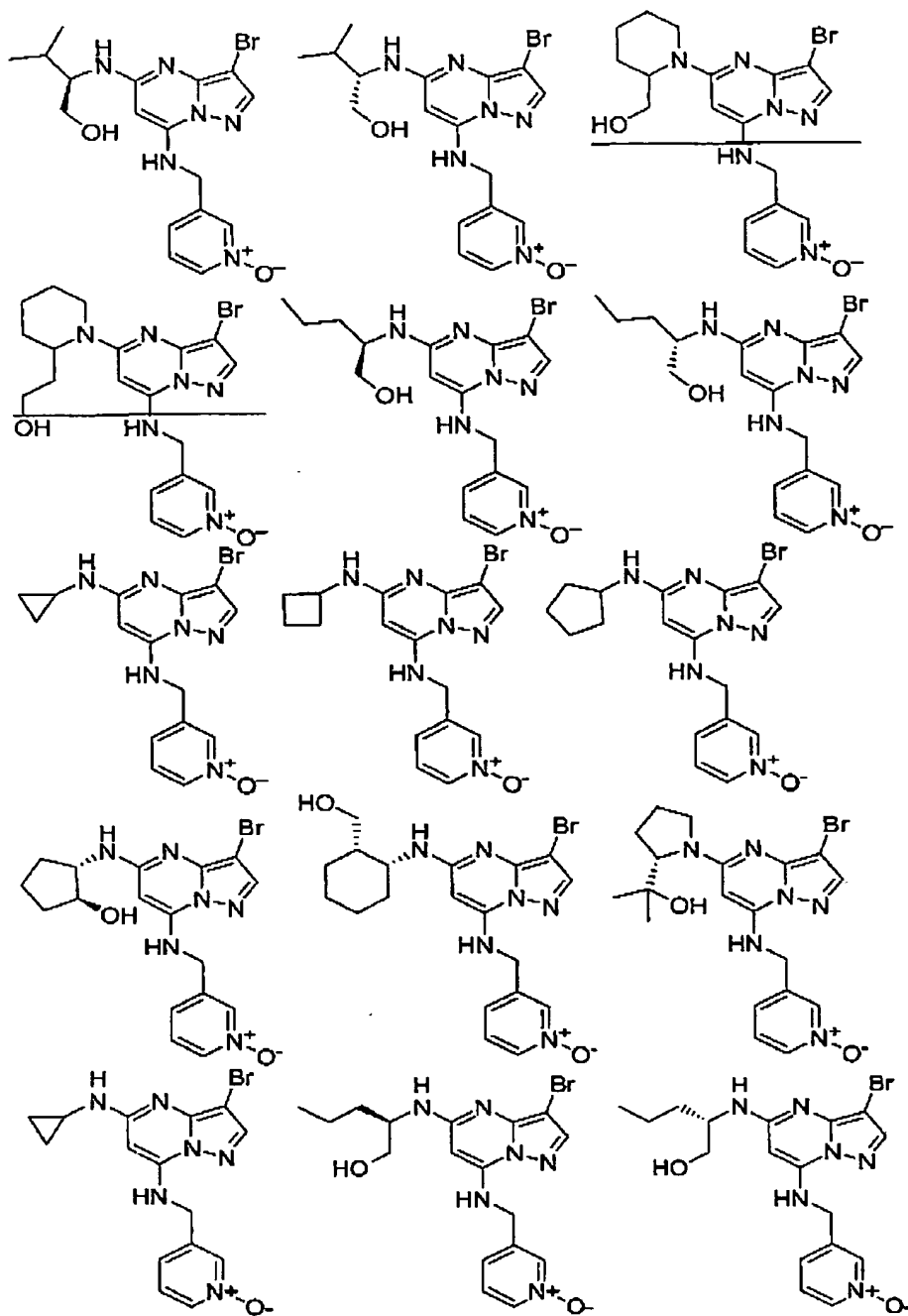
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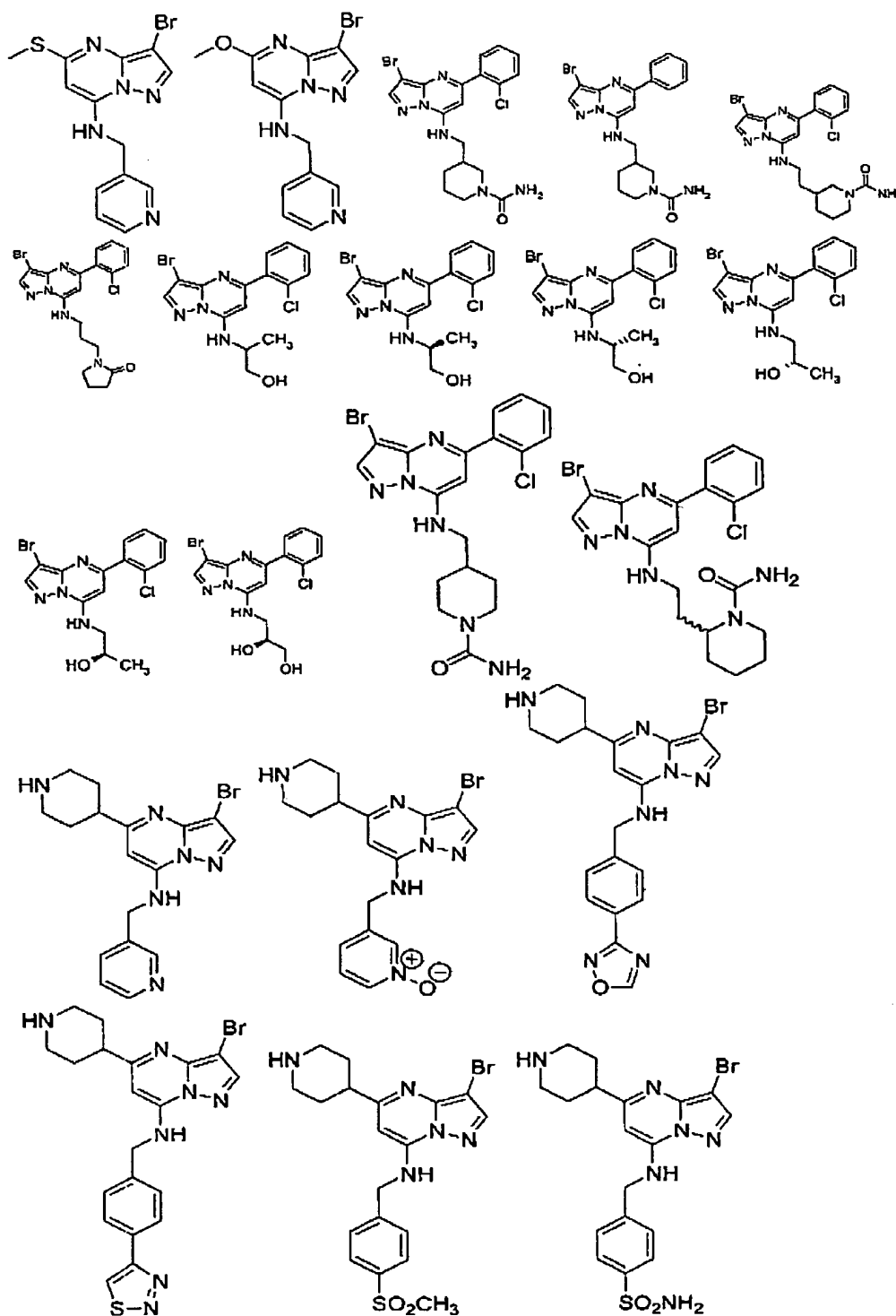


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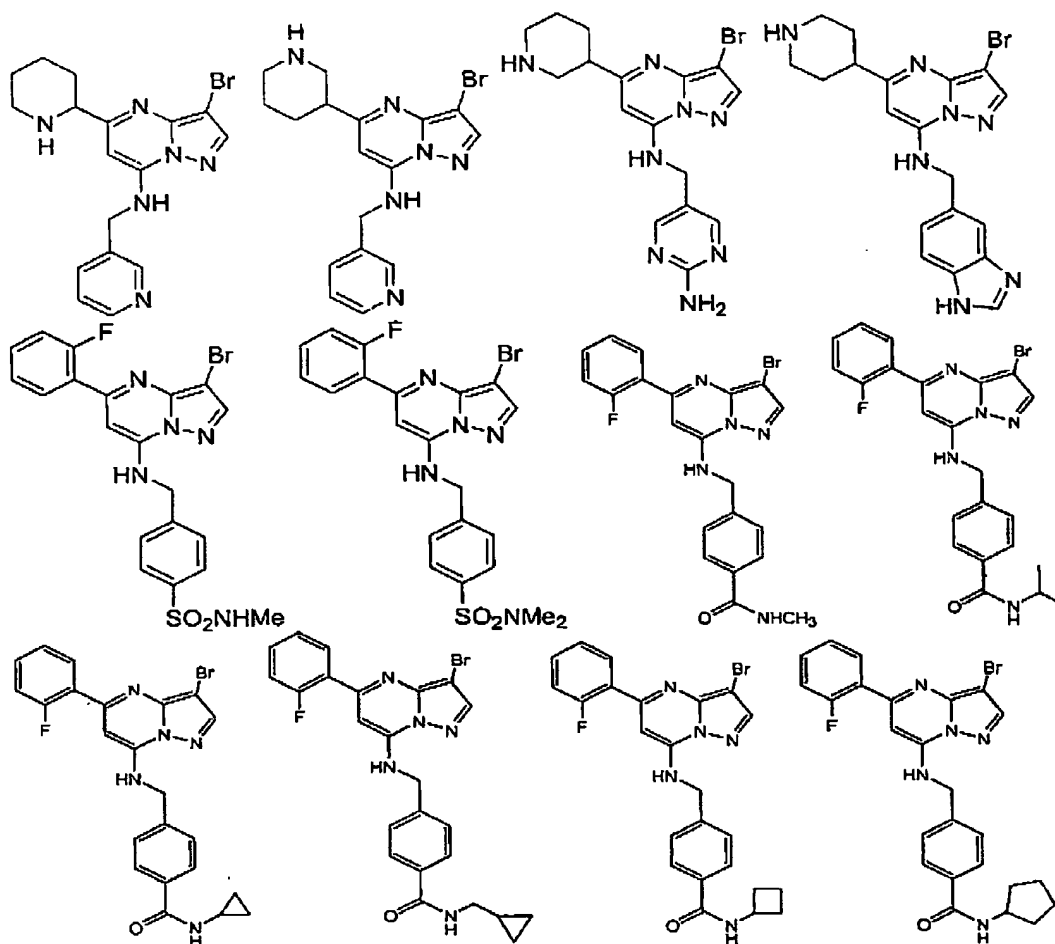


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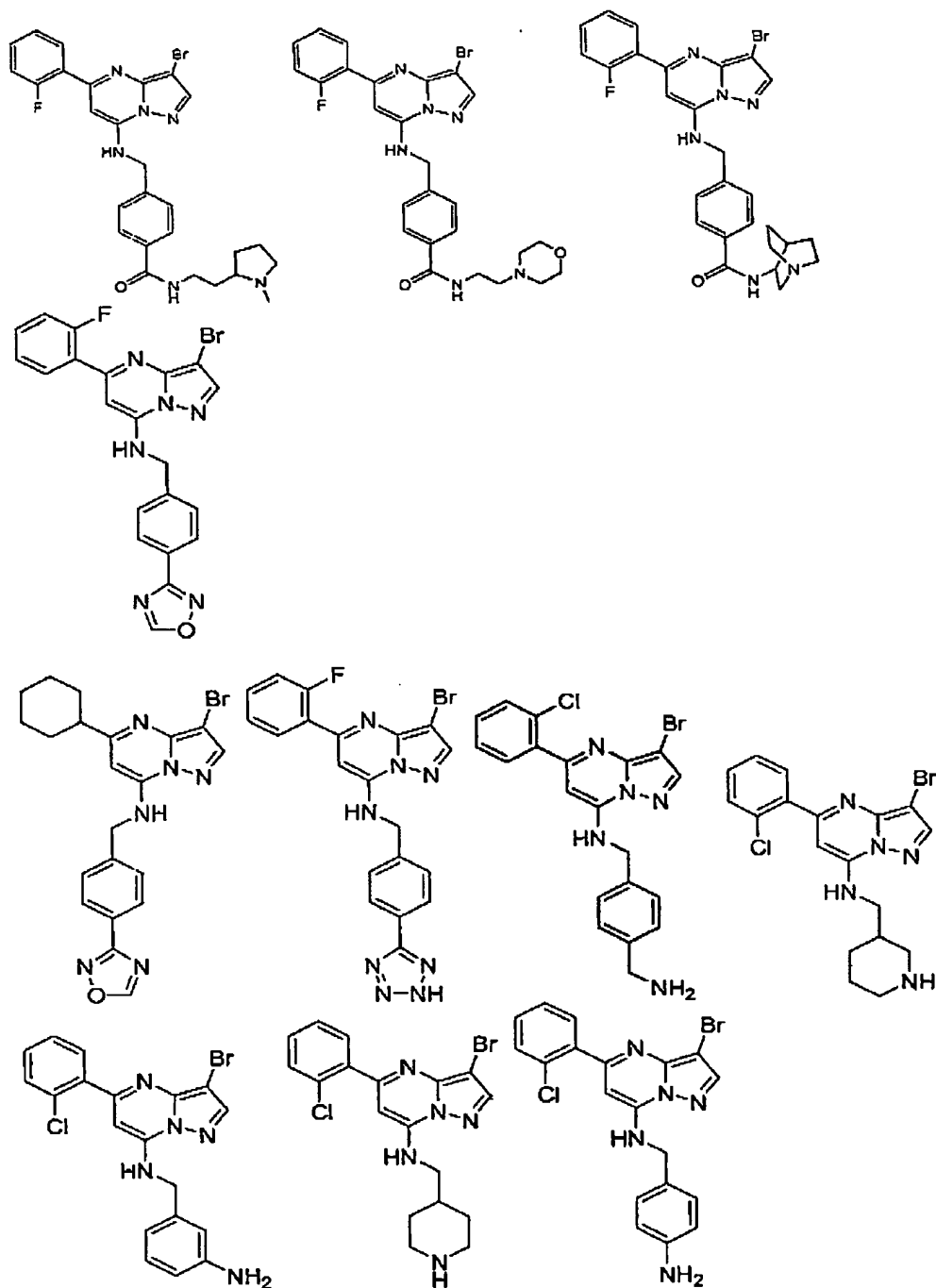




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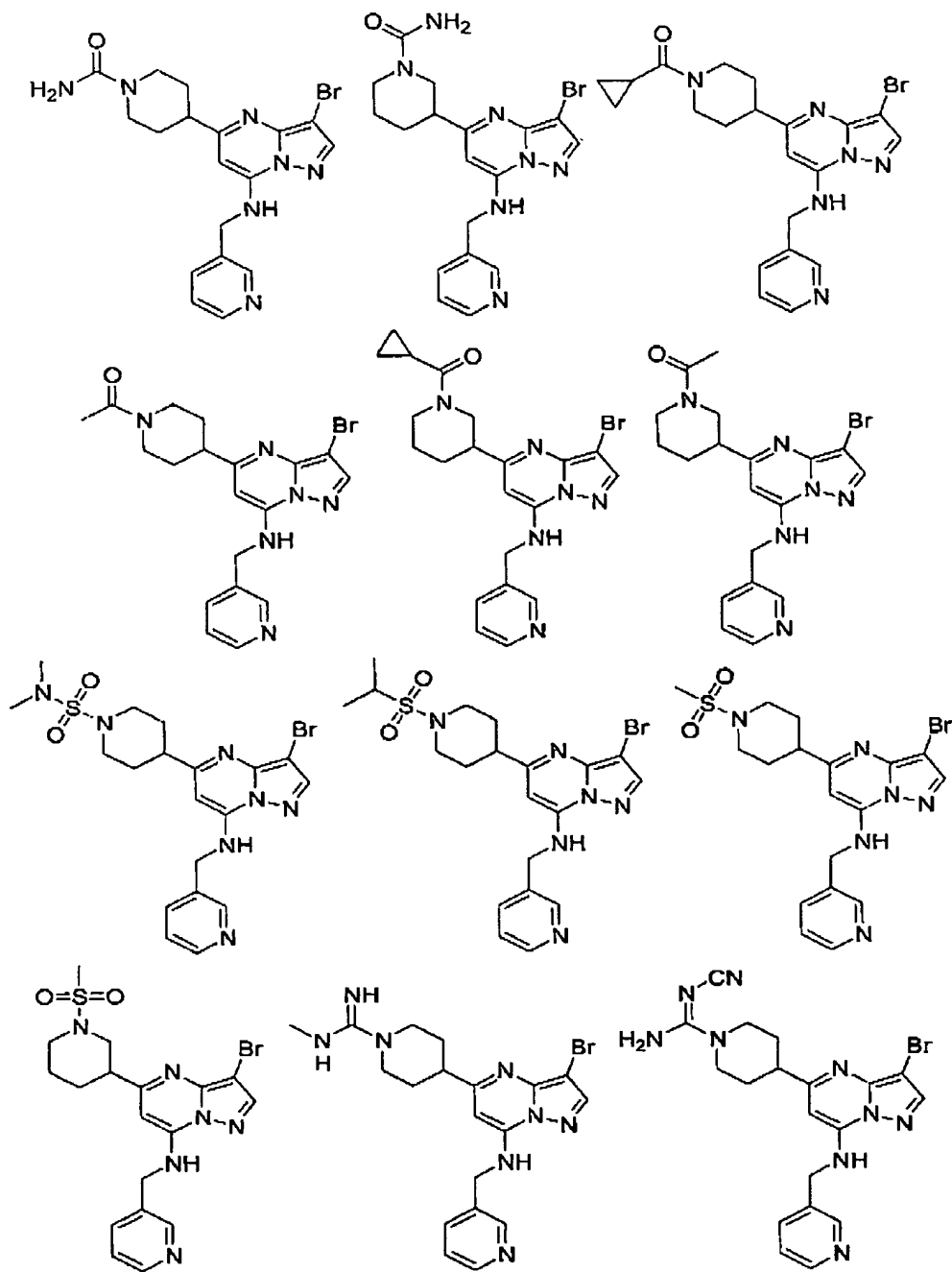


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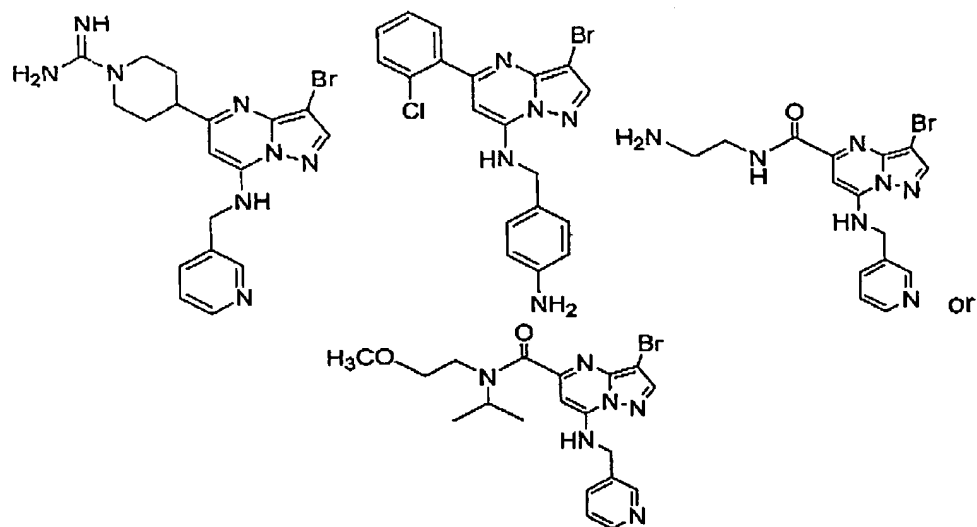


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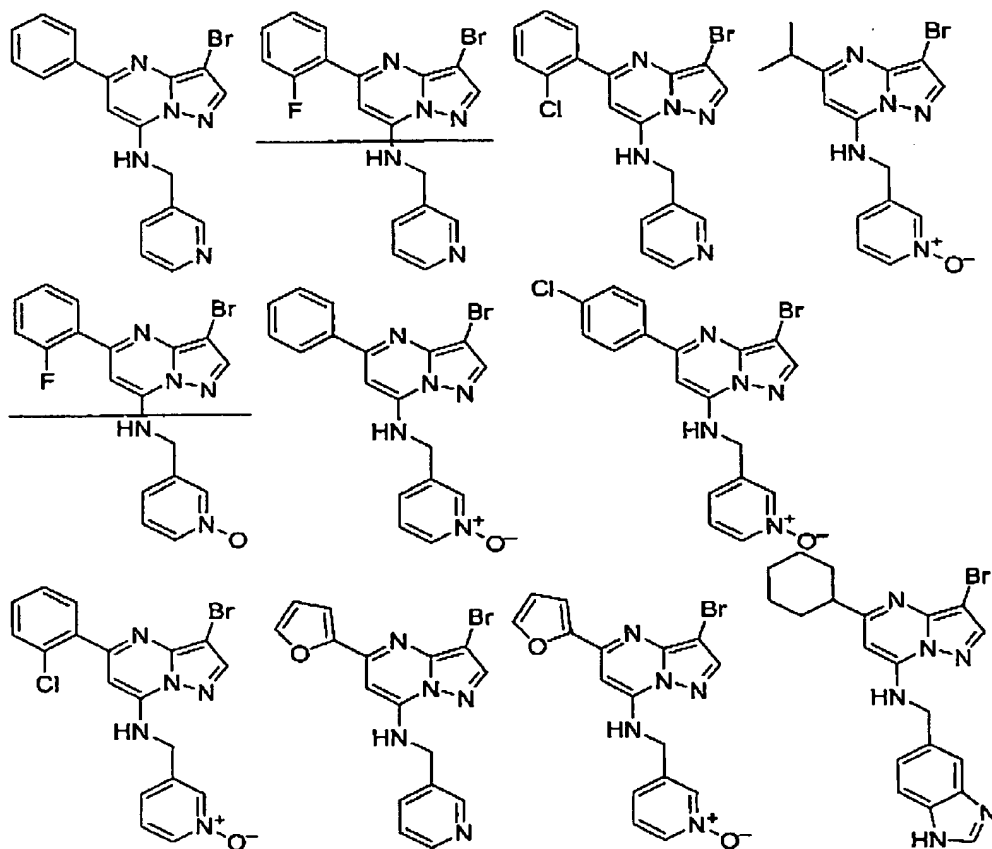


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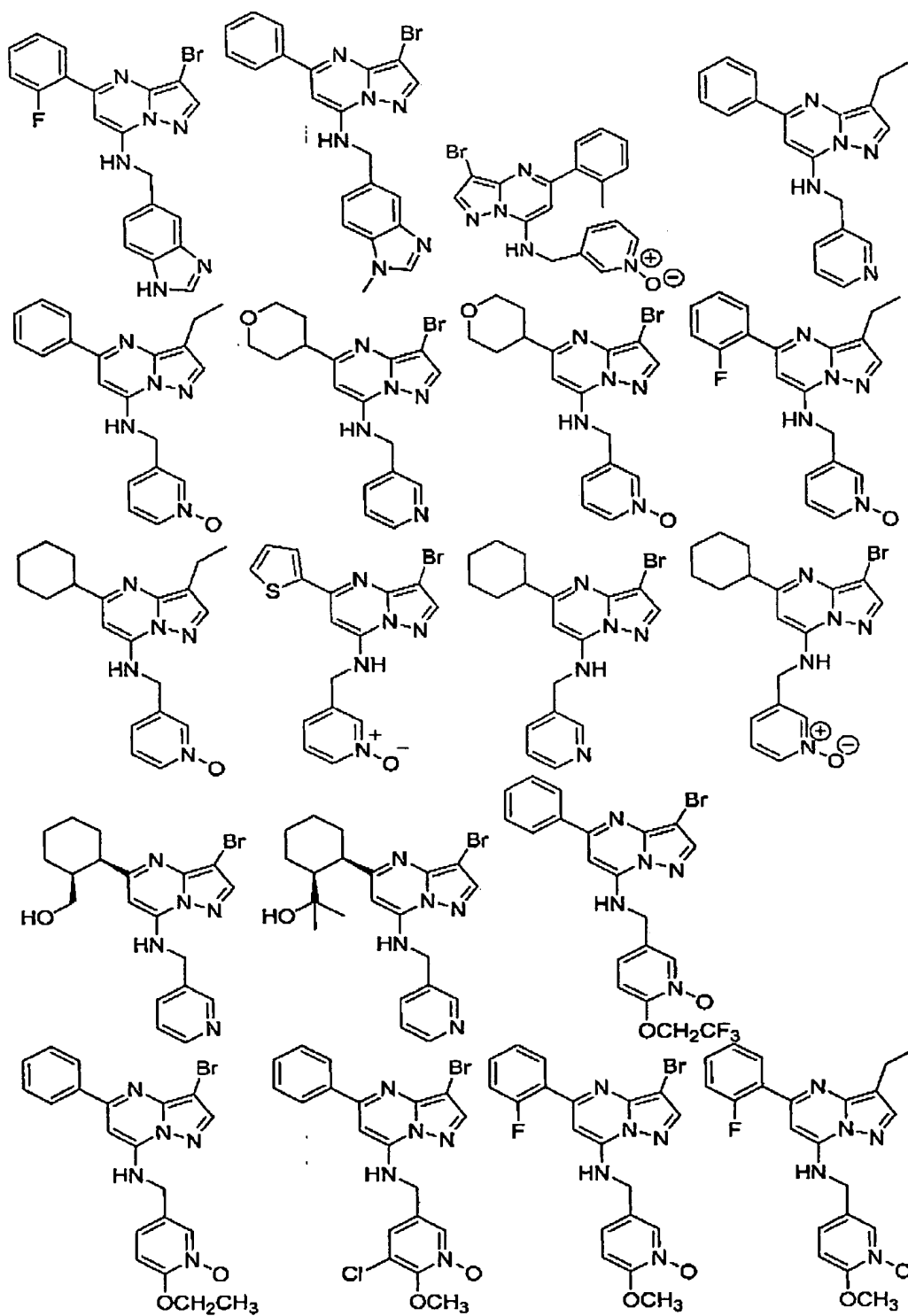


or a pharmaceutically acceptable salt thereof.

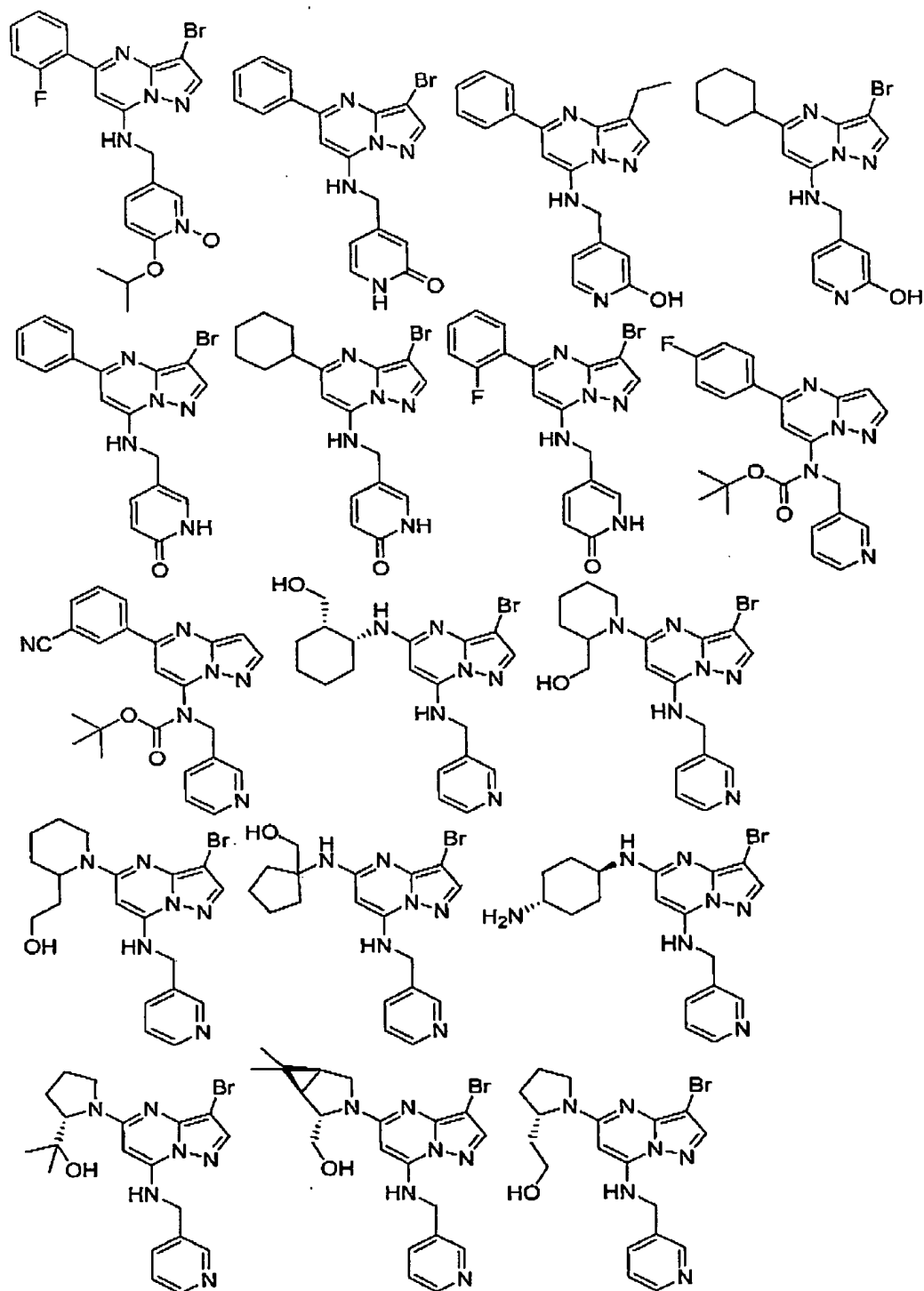
5 Claim 28 (currently amended): A compound of the formula:



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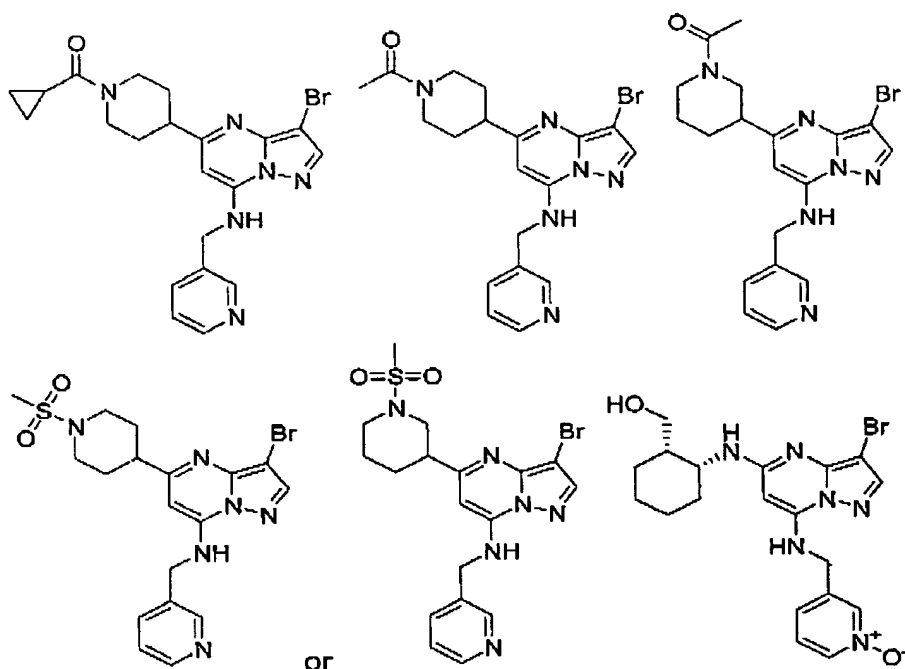


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The image displays 15 chemical structures of pyrazolo[1,5-a]pyrimidine derivatives, arranged in a grid. Each structure features a pyrazolo[1,5-a]pyrimidine core with a bromine atom at the 5-position. The structures are as follows:

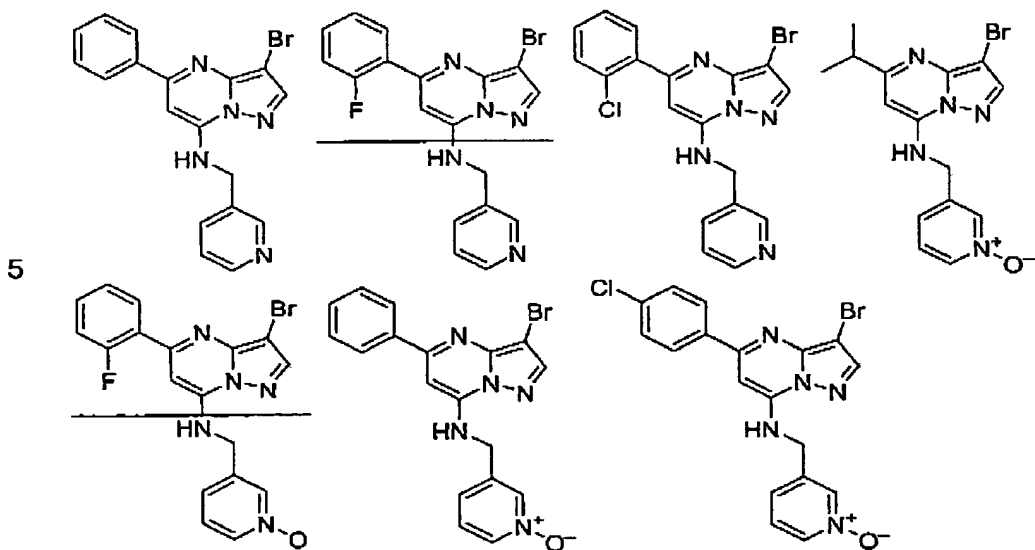
- Structure 1 (top left):** 2-((3S,3-dimethyl-4-hydroxybutyl)amino)-4-(pyridin-3-ylmethyl)-7-bromo-1H-pyrazolo[1,5-a]pyrimidin-3-amine.
- Structure 2 (top middle):** 2-((1S,2S,3S,4S)-2,3,4,5-tetrahydro-2H-pyridin-3-yl)-4-(pyridin-3-ylmethyl)-7-bromo-1H-pyrazolo[1,5-a]pyrimidin-3-amine.
- Structure 3 (top right):** 2-((3S,3-dimethyl-4-hydroxybutyl)amino)-4-(pyridin-3-ylmethyl)-7-bromo-1H-pyrazolo[1,5-a]pyrimidin-3-amine.
- Structure 4 (second row, left):** 2-((3S,3-dimethyl-4-hydroxybutyl)amino)-4-(pyridin-3-ylmethyl)-7-bromo-1H-pyrazolo[1,5-a]pyrimidin-3-amine.
- Structure 5 (second row, middle):** 2-((1S,2S,3S,4S)-2,3,4,5-tetrahydro-2H-pyridin-3-yl)-4-(pyridin-3-ylmethyl)-7-bromo-1H-pyrazolo[1,5-a]pyrimidin-3-amine.
- Structure 6 (second row, right):** 2-((1S,2S,3S,4S)-2,3,4,5-tetrahydro-2H-pyridin-3-yl)-4-(pyridin-3-ylmethyl)-7-bromo-1H-pyrazolo[1,5-a]pyrimidin-3-amine.
- Structure 7 (third row, left):** 2-((1S,2S,3S,4S)-2,3,4,5-tetrahydro-2H-pyridin-3-yl)-4-(pyridin-3-ylmethyl)-7-bromo-1H-pyrazolo[1,5-a]pyrimidin-3-amine.
- Structure 8 (third row, middle):** 2-((1S,2S,3S,4S)-2,3,4,5-tetrahydro-2H-pyridin-3-yl)-4-(pyridin-3-ylmethyl)-7-bromo-1H-pyrazolo[1,5-a]pyrimidin-3-amine.
- Structure 9 (third row, right):** 2-((1S,2S,3S,4S)-2,3,4,5-tetrahydro-2H-pyridin-3-yl)-4-(pyridin-3-ylmethyl)-7-bromo-1H-pyrazolo[1,5-a]pyrimidin-3-amine.
- Structure 10 (bottom row, left):** 2-((1S,2S,3S,4S)-2,3,4,5-tetrahydro-2H-pyridin-3-yl)-4-(pyridin-3-ylmethyl)-7-bromo-1H-pyrazolo[1,5-a]pyrimidin-3-amine.
- Structure 11 (bottom row, middle):** 2-((1S,2S,3S,4S)-2,3,4,5-tetrahydro-2H-pyridin-3-yl)-4-(pyridin-3-ylmethyl)-7-bromo-1H-pyrazolo[1,5-a]pyrimidin-3-amine.
- Structure 12 (bottom row, right):** 2-((1S,2S,3S,4S)-2,3,4,5-tetrahydro-2H-pyridin-3-yl)-4-(pyridin-3-ylmethyl)-7-bromo-1H-pyrazolo[1,5-a]pyrimidin-3-amine.
- Structure 13 (bottom row, far left):** 2-((1S,2S,3S,4S)-2,3,4,5-tetrahydro-2H-pyridin-3-yl)-4-(pyridin-3-ylmethyl)-7-bromo-1H-pyrazolo[1,5-a]pyrimidin-3-amine.
- Structure 14 (bottom row, far middle):** 2-((1S,2S,3S,4S)-2,3,4,5-tetrahydro-2H-pyridin-3-yl)-4-(pyridin-3-ylmethyl)-7-bromo-1H-pyrazolo[1,5-a]pyrimidin-3-amine.
- Structure 15 (bottom row, far right):** 2-((1S,2S,3S,4S)-2,3,4,5-tetrahydro-2H-pyridin-3-yl)-4-(pyridin-3-ylmethyl)-7-bromo-1H-pyrazolo[1,5-a]pyrimidin-3-amine.

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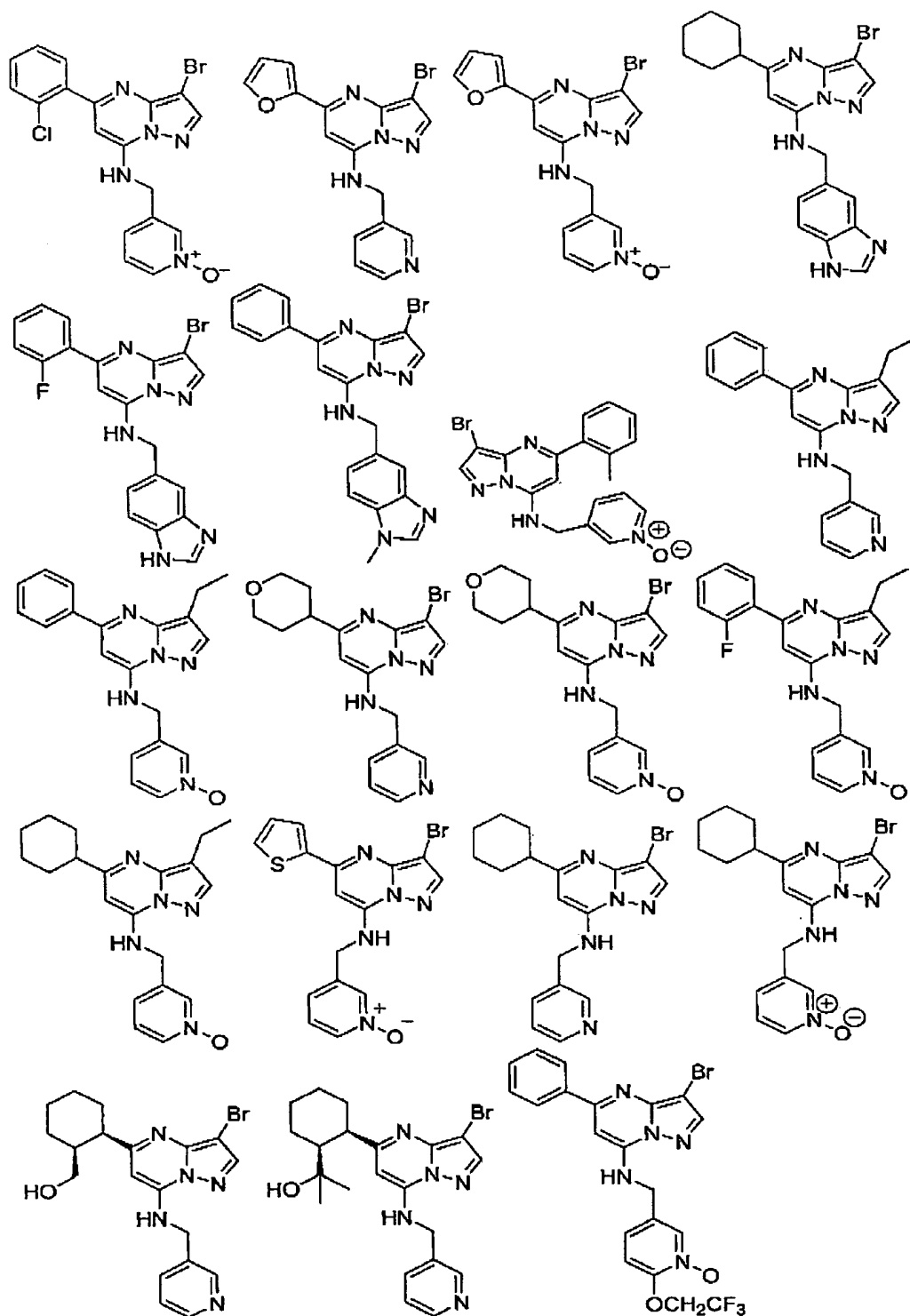


or a pharmaceutically acceptable salt thereof.

Claim 29 (currently amended): A compound of the formula:



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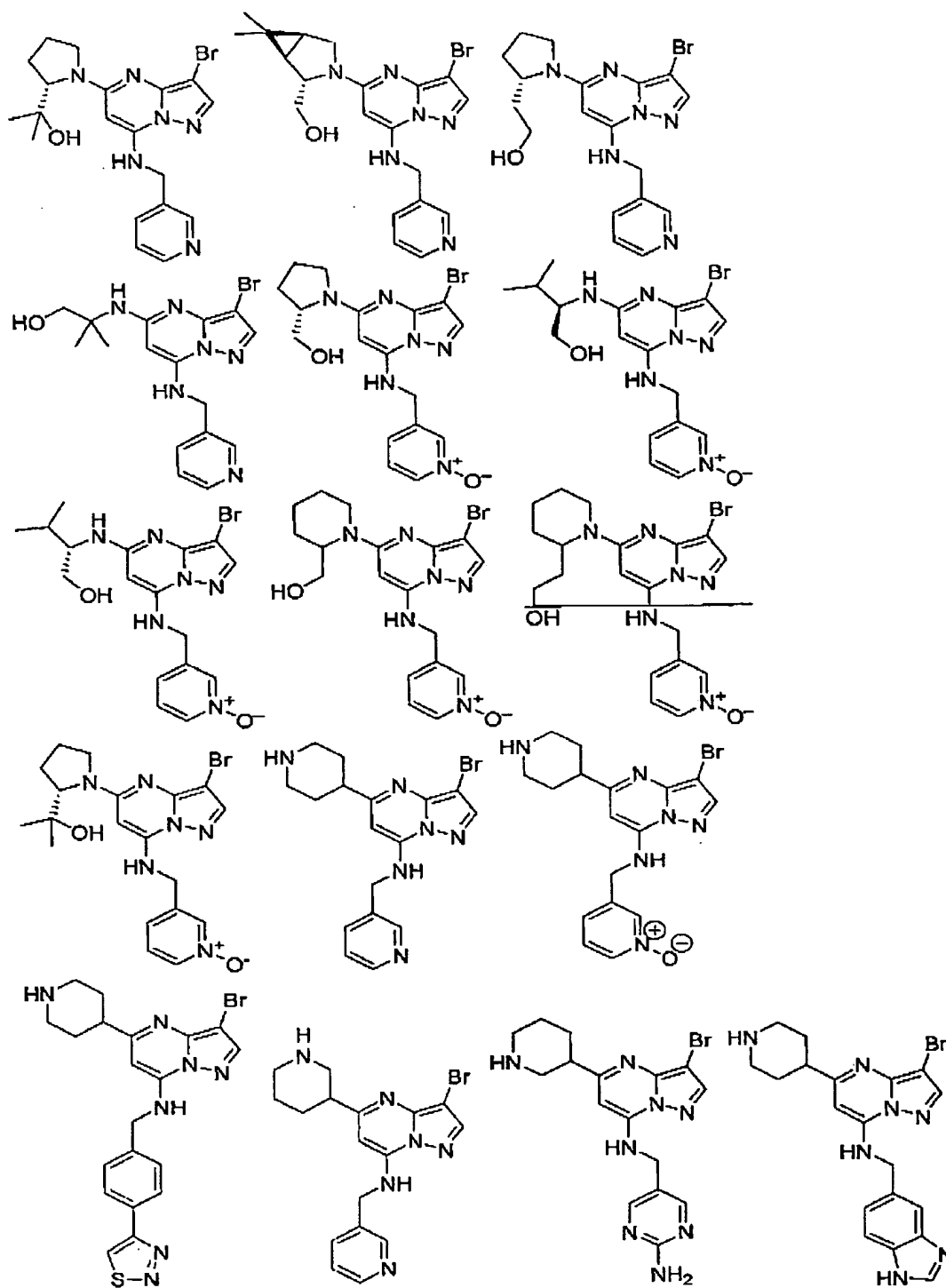


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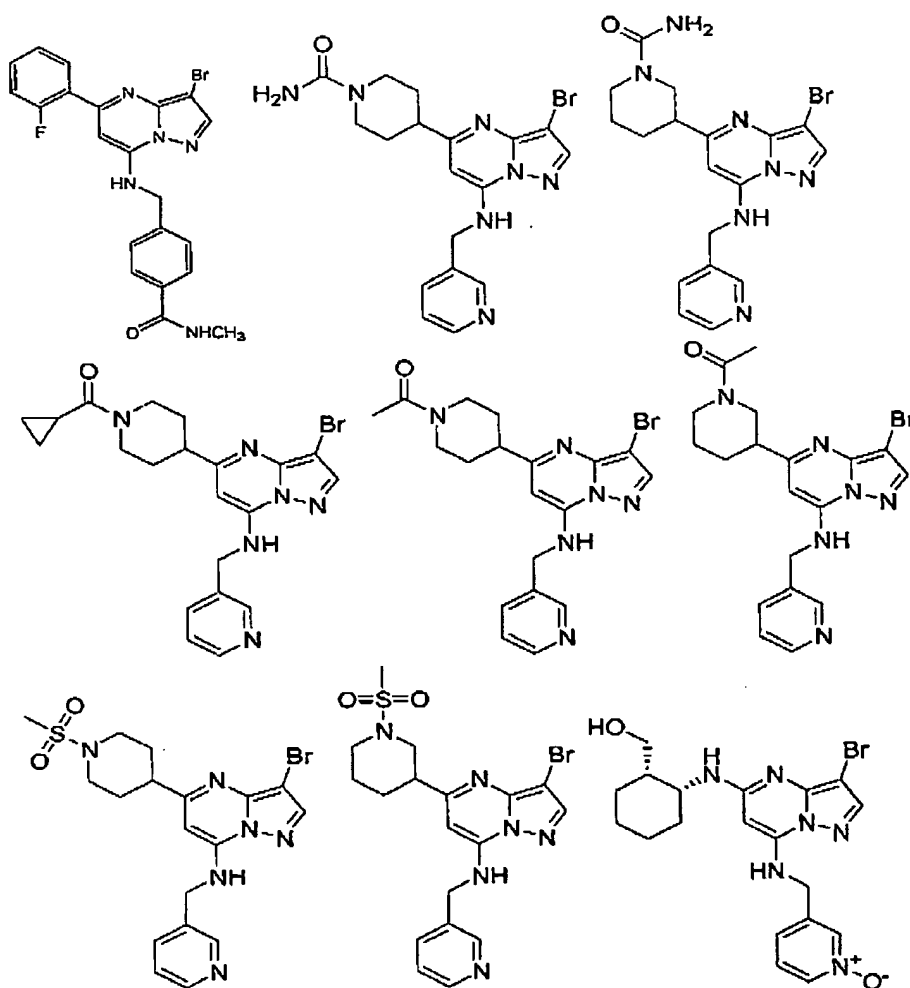
The image displays 15 chemical structures of pyrazolo[1,5-a]pyrimidin-3-ylamine derivatives, arranged in four rows. Each structure features a pyrazolo[1,5-a]pyrimidine core with a bromine atom at the 5-position and an amine group at the 3-position. The amine group is substituted with various side chains:

- Structure 1:** 4-ethoxy-2-nitrophenyl group.
- Structure 2:** 2-chloro-4-methoxyphenyl group.
- Structure 3:** 4-methoxyphenyl group.
- Structure 4:** 4-methoxyphenyl group.
- Structure 5:** 4-isopropoxy-2-nitrophenyl group.
- Structure 6:** 2-oxo-4-phenylpyridin-5-yl group.
- Structure 7:** 3-hydroxyphenyl group.
- Structure 8:** 3-hydroxyphenyl group.
- Structure 9:** 2-oxo-4-phenylpyridin-5-yl group.
- Structure 10:** 2-oxo-4-phenylpyridin-5-yl group.
- Structure 11:** 2-oxo-4-phenylpyridin-5-yl group.
- Structure 12:** 2-oxo-4-phenylpyridin-5-yl group.
- Structure 13:** 4-cyano-2-nitrophenyl group.
- Structure 14:** 2-oxo-4-phenylpyridin-5-yl group.
- Structure 15:** 2-oxo-4-phenylpyridin-5-yl group.

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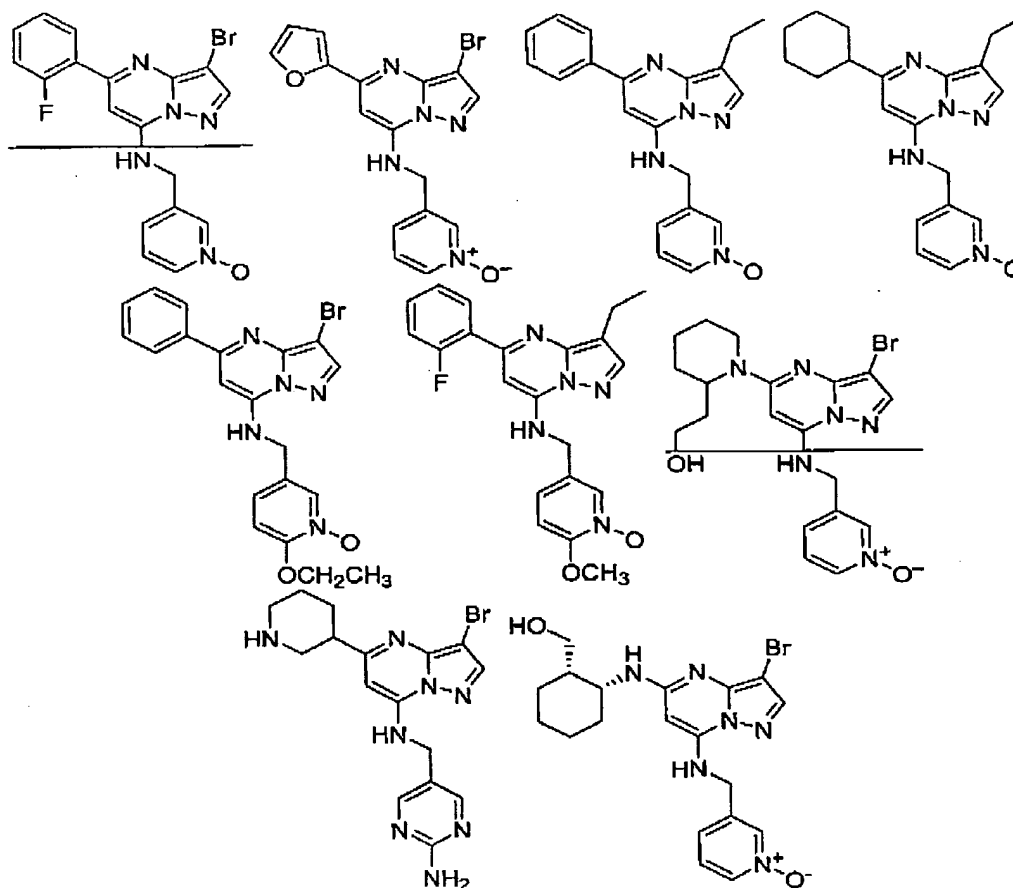
32



5 or a pharmaceutically acceptable salt thereof.

Claim 30 (currently amended): A compound of the formula:

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5 or a pharmaceutically acceptable salt thereof.

Claim 31 (currently amended): A method of inhibiting ~~one or more~~ cyclin dependent kinases kinase1 (CDK1) or cyclin dependent kinase 2 (CDK2), comprising administering ~~a therapeutically effective amount of~~ at least one compound of claim 1.

10 Claim 32 (Currently amended): A method of treating one or more diseases ~~associated with cyclin dependent kinase~~ by inhibiting CDK1 or CDK2, comprising administering ~~a therapeutically effective amount of~~ at least one compound of claim 1.

Claim 33 (currently amended): The method of claim 32, wherein said ~~eyelin~~ dependent kinase ~~is~~ treatment is by inhibiting CDK2.

Claim 34 (currently amended): The method of claim 32, wherein said cyclin dependent kinase is mitogen-activated protein kinase (MAPK/ERK) treatment is by inhibiting CDK1.

Claim 35: cancelled.

- 5 Claim 36 (original): The method of claim 32, wherein said disease is selected from the group consisting of:

cancer of the bladder, breast, colon, kidney, liver, lung, small cell lung cancer, esophagus, gall bladder, ovary, pancreas, stomach, cervix, thyroid, prostate, and skin, including squamous cell carcinoma;

- 10 leukemia, acute lymphocytic leukemia, acute lymphoblastic leukemia, B-cell lymphoma, T- cell lymphoma, Hodgkins lymphoma, non-Hodgkins lymphoma, hairy cell lymphoma and Burkett's lymphoma;

acute and chronic myelogenous leukemia, myelodysplastic syndrome and promyelocytic leukemia;

- 15 fibrosarcoma, rhabdomyosarcoma;

astrocytoma, neuroblastoma, glioma and schwannomas;
melanoma, seminoma, teratocarcinoma, osteosarcoma, xenoderoma pigmentosum, keratocanthoma, thyroid follicular cancer and Kaposi's sarcoma.

- 20 Claim 37 (currently amended): A method of treating one or more diseases ~~associated with cyclin dependent kinase~~ by inhibiting CDK1 or CDK2, comprising administering to a mammal ~~in need of such treatment~~

an amount of a first compound, which is a compound of claim 1, or a pharmaceutically acceptable salt thereof;

- 25 and

an amount of at least one second compound, said second compound being an anti-cancer agent;

wherein the amounts of the first compound and said second compound result in a therapeutic effect.

- 30 Claim 38 (original): The method of claim 37, further comprising radiation therapy.

Claim 39 (original): The method of claim 37, wherein said anti-cancer agent is selected from the group consisting of a cytostatic agent, cisplatin, doxorubicin, taxotere, taxol, etoposide, CPT-11, irinotecan, camptostar, topotecan,

- paclitaxel, docetaxel, epothilones, tamoxifen, 5-fluorouracil, methotrexate, 5FU, temozolomide, cyclophosphamide, SCH 66336, R115777, L778,123, BMS 214662, Iressa, Tarceva, antibodies to EGFR, Gleevec, intron, ara-C, adriamycin, cytoxan, gemcitabine, Uracil mustard, Chlormethine, Ifosfamide,
- 5 Melphalan, Chlorambucil, Pipobroman, Triethylenemelamine, Triethylenethiophosphoramine, Busulfan, Carmustine, Lomustine, Streptozocin, Dacarbazine, Floxuridine, Cytarabine, 6-Mercaptopurine, 6-Thioguanine, Fludarabine phosphate, oxaliplatin, leucovirin, ELOXATIN™, Pentostatine, Vinblastine, Vincristine, Vindesine, Bleomycin, Dactinomycin,
- 10 Daunorubicin, Doxorubicin, Epirubicin, Idarubicin, Mithramycin, Deoxycoformycin, Mitomycin-C, L-Asparaginase, Teniposide 17 α -Ethinylestradiol, Diethylstilbestrol, Testosterone, Prednisone, Fluoxymesterone, Dromostanolone propionate, Testolactone, Megestrolacetate, Methylprednisolone, Methyltestosterone, Prednisolone,
- 15 Triamcinolone, Chlorotrianisene, Hydroxyprogesterone, Aminoglutethimide, Estramustine, Medroxyprogesteroneacetate, Leuprolide, Flutamide, Toremifene, goserelin, Cisplatin, Carboplatin, Hydroxyurea, Amsacrine, Procarbazine, Mitotane, Mitoxantrone, Levamisole, Navelbene, CPT-11, Anastrozole, Letrozole, Capecitabine, Reloxafine, Droloxafine, or
- 20 Hexamethylmelamine.
- Claim 40 (currently amended): A pharmaceutical composition comprising a ~~therapeutically effective amount of~~ at least one compound of claim 1 in combination with at least one pharmaceutically acceptable carrier.
- Claim 41 (original): The pharmaceutical composition of claim 38, additionally
- 25 comprising one or more anti-cancer agents selected from the group consisting of cytostatic agent, cisplatin, doxorubicin, taxotere, taxol, etoposide, CPT-11, irinotecan, camptostar, topotecan, paclitaxel, docetaxel, epothilones, tamoxifen, 5-fluorouracil, methotrexate, 5FU, temozolomide, cyclophosphamide, SCH 66336, R115777, L778,123, BMS 214662, Iressa,
- 30 Tarceva, antibodies to EGFR, Gleevec, intron, ara-C, adriamycin, cytoxan, gemcitabine, Uracil mustard, Chlormethine, Ifosfamide, Melphalan, Chlorambucil, Pipobroman, Triethylenemelamine, Triethylenethiophosphoramine, Busulfan, Carmustine, Lomustine,

- Streptozocin, Dacarbazine, Floxuridine, Cytarabine, 6-Mercaptopurine, 6-Thioguanine, Fludarabine phosphate, Pentostatine, Vinblastine, Vincristine, Vindesine, Bleomycin, Dactinomycin, Daunorubicin, Doxorubicin, Epirubicin, Idarubicin, Mithramycin, Deoxycoformycin, Mitomycin-C, L-Asparaginase,
- 5 Teniposide 17 α -Ethinylestradiol, Diethylstilbestrol, Testosterone, Prednisone, Fluoxymesterone, Dromostanolone propionate, Testolactone, Megestrolacetate, Methylprednisolone, Methyltestosterone, Prednisolone, Triamcinolone, Chlorotrianisene, Hydroxyprogesterone, Aminoglutethimide, Estramustine, Medroxyprogesteroneacetate, Leuprolide, Flutamide,
- 10 Toremifene, goserelin, Cisplatin, Carboplatin, Hydroxyurea, Amsacrine, Procarbazine, Mitotane, Mitoxantrone, Levamisole, Navelbene, CPT-11, Anastrozole, Letrozole, Capecitabine, Reloxafine, Droloxafine, or Hexamethylmelamine.

Claim 42 (original): A compound of claim 1 in purified form.

- 15 Claim 43 (currently amended): A method of treating a cancer by inhibiting CDK1 or CDK2, comprising administering ~~a therapeutically effective amount of~~ at least one compound of claim 1.

Claim 44 (previously presented): The method of claim 43, wherein said disease is selected from the group consisting of:

- 20 cancer of the bladder, breast, colon, kidney, liver, lung, small cell lung cancer, esophagus, gall bladder, ovary, pancreas, stomach, cervix, thyroid, prostate, and skin, including squamous cell carcinoma;
- leukemia, acute lymphocytic leukemia, acute lymphoblastic leukemia, B-cell lymphoma, T- cell lymphoma, Hodgkins lymphoma, non-Hodgkins
- 25 lymphoma, hairy cell lymphoma and Burkett's lymphoma;
- acute and chronic myelogenous leukemia, myelodysplastic syndrome and promyelocytic leukemia;
- fibrosarcoma, rhabdomyosarcoma;
- astrocytoma, neuroblastoma, glioma and schwannomas;
- 30 melanoma, seminoma, teratocarcinoma, osteosarcoma, xenoderoma pigmentosum, keratocanthoma, thyroid follicular cancer and Kaposi's sarcoma.

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Claim 45 (currently amended): A method of treating a cancer by inhibiting CDK1 or CDK2, comprising administering to a mammal ~~in need of such treatment~~

an amount of a first compound, which is a compound of claim 1, or a
5 pharmaceutically acceptable salt thereof;
and

an amount of at least one second compound, said second compound
being an anti-cancer agent;

wherein the amounts of the first compound and said second compound
10 result in a therapeutic effect.

Claim 46 (previously presented): The method of claim 45, further comprising
radiation therapy.

Claim 47 (previously presented): The method of claim 45, wherein said anti-
cancer agent is selected from the group consisting of a cytostatic agent,
15 cisplatin, doxorubicin, taxotere, taxol, etoposide, CPT-11, irinotecan,
camptostar, topotecan, paclitaxel, docetaxel, epothilones, tamoxifen, 5-
fluorouracil, methoxtrexate, 5FU, temozolomide, cyclophosphamide, SCH
66336, R115777, L778,123, BMS 214662, Iressa, Tarceva, antibodies to
EGFR, Gleevec, intron, ara-C, adriamycin, cytoxan, gemcitabine, Uracil
20 mustard, Chlormethine, Ifosfamide, Melphalan, Chlorambucil, Pipobroman,
Triethylenemelamine, Triethylenethiophosphoramine, Busulfan, Carmustine,
Lomustine, Streptozocin, Dacarbazine, Floxuridine, Cytarabine,
6-Mercaptopurine, 6-Thioguanine, Fludarabine phosphate, oxaliplatin,
leucovorin, ELOXATIN™, Pentostatine, Vinblastine, Vincristine, Vindesine,
25 Bleomycin, Dactinomycin, Daunorubicin, Doxorubicin, Epirubicin, Idarubicin,
Mithramycin, Deoxycoformycin, Mitomycin-C, L-Asparaginase, Teniposide
17 α -Ethinylestradiol, Diethylstilbestrol, Testosterone, Prednisone,
Fluoxymesterone, Dromostanolone propionate, Testolactone,
Megestrolacetate, Methylprednisolone, Methyltestosterone, Prednisolone,
30 Triamcinolone, Chlorotrianisene, Hydroxyprogesterone, Aminoglutethimide,
Estramustine, Medroxyprogesteroneacetate, Leuprolide, Flutamide,
Toremifene, goserelin, Cisplatin, Carboplatin, Hydroxyurea, Amsacrine,
Procarbazine, Mitotane, Mitoxantrone, Levamisole, Navelbene, CPT-11,

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Anastrozole, Letrozole, Capecitabine, Reloxafine, Droloxafine, or
Hexamethylmelamine.